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Office of Policy Development and Research

1980 National Housing Production Report

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1980 NATIONAL HOUSING PRODUCTION REPORT

Prepared by
U.S. Department of Housing and Urban Development
Office of Policy Development and Research
Division of Housing and Demographic Analysis

February 1980

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Preface

The 1980 National Housing Production Report of the President is the successor to the Annual Reports of the President on the National Housing Goal, which were sent to the Congress from 1969 through 1978. There was no report in 1979; instead, this Report covers both 1979 and 1980.

This Report was prepared in January and February 1980, and sent to the Congress by President Jimmy Carter on March 19, 1980.

Acknowledgements

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Summary of the
1980 National Housing Production Report

The Report consists of a narrative and four appendices. The narrative contains a description of the state of the housing inventory in 1977 and the characteristics of housing production and marketing in 1978 and 1979, and includes a discussion of anticipated developments in 1980. The narrative also has sections detailing trends in rental housing and in tenure preference and housing structure type.

The section on housing production and marketing shows that, despite predictions of a downturn, 1978 was the fourth best year on record for housing starts, which amounted to 2.023 million. Single family starts of 1.433 million were near the record set in 1977. New home sales of 817,000 equaled the previous year's record volume, while existing home sales set a new record of 3.905 million. New housing completions and mobile home placements added 2.147 million units to the nation's housing inventory in 1978. The vigor of the housing industry, particularly the single family homeownership sector, was due to continued strength in the economy, the demographic pressures exerted through new household formations, the availability of mortgage funds at adequately high levels through the introduction of money market certificates, and the interlocking effects of inflationary expectations with the tax benefits and potential for equity appreciation which arise from homeownership.

In 1979 the expected downturn in housing production and sales began. Construction starts of 1.748 million were 14 percent below those for 1978. Most of the decline occurred in single family starts, which fell by 0.24 million to 1.193 million in 1979. Multifamily starts declined from 587 thousand in 1978 to 550 thousand in 1979. Sales of new single family houses fell 13 percent to 712 thousand, but existing home sales went down only 4 percent to 3.747 million in 1979. Additions to the housing inventory from new housing unit completions and mobile home placements were unchanged from 1978 at 2.150 million units. The drop in production initiation and in sales was due to many factors, including record sales prices and interest rates which were beginning to price many buyers out of the market, an apparent temporary slowing in the rate of household formations, uncertainty about the economy, and a tightening in the supply of mortgage credit in the fourth quarter of 1979.

The outlook for housing production and marketing throughout 1980 is for further declines in housing starts, sales and completions. Rapidly changing economic conditions make it difficult to project actual levels with any great degree of certainty. Starts might be expected to total between 1.3 and 1.5 million units, including 1.0 to 1.1 million single family houses. New house sales could drop to between 550 thousand and 650 thousand units. Inventory additions from housing completions and mobile home placements are estimated to range from 1.75 to 1.85 million units. These rates of additions will be sufficient to house the new households expected to form, but will make possible the replacement of only 200 thousand to 300 thousand of the least desirable housing units. Vacancy rates will also continue to be low at these levels of production. Investment in the nation's existing inventory is expected to continue at high levels, at nearly $50 billion in current dollars.

The Report notes that the nation's housing stock grew by 1.5 million units in the year preceding November 1977, to 82.4 million units, and by another 2.2 million units by November 1978, to 84.6 million housing units. The vacancy rate for all units suitable for year round use was 6.7 percent in 1977 and 6.9 percent in 1978. The homeownership rate, which was 64.6 percent in 1975, 64.7 percent in 1976, and 64.8 percent in 1977, shot up to 65.2 percent in 1978 as homeownership became financially more attractive. Between 1977 and 1978 the number of owner-occupied units increased 1.5 million to 50.3 million units, while the number of renter-occupied units increased only 0.3 million to 26.9 million units. Between 1970 and 1977 the stock of year-round units increased fastest in rural areas, a 33.2 percent increase of 5.9 million units to 23.6 million in 1977. The increase in urban areas was 14.2 percent, or 7.1 million units, to a 1977 total of 57.1 million. As the housing stock has grown it has improved in quality, so that by most measures there were fewer poor quality units in 1977 than in prior years. For example, the number of occupied units lacking some or all plumbing was 1.805 million in 1977, down from 2.281 million as recently as 1974. The number of crowded units, with more than one person per room, declined from 3.788 million in 1974 to 3.278 million in 1977. Thus Americans were better housed than ever before, but millions of poor quality units remained in the stock, and were disproportionately inhabited by the poor and by minority households. The section on housing needs notes that, by one measure of physical deficiency, 9.7 percent of all households, but 21.4 percent of Black households and 18.5 percent of Hispanic households lived in physically flawed housing in 1976.

The report traces recent trends in rental housing in the United States, showing that the rental stock grew only half as fast as the owner-occupied stock from 1970 to 1977. Most of the increase in the rental stock was in multifamily buildings, as the renter-occupied single family housing stock declined absolutely due to demolition of poorer quality units and conversion of better units to owner occupancy status. Renter occupied units improved in quality, as the proportion lacking some or all plumbing decreased from 7.8 percent in 1970 to 4.2 percent in 1977. In 1977, however, almost 10 percent of the renter stock outside metropolitan areas still lacked some or all plumbing facilities. Rental vacancy rates have declined to new lows of about 5 percent in recent years, although the vacant rental stock is of better quality than in prior years. After high volumes of production in the early 1970s, multifamily starts have remained at fairly low levels in recent years, even though production was rising slowly into 1978, before turning down in 1979. The continued shift to homeownership for the investment and tax advantages has taken many middle-and upper-income households out of the rental market. Apartment owners have not been able to raise rents as fast as operating costs have increased because renter incomes have increased even more slowly than rents. An increasing proportion of renters have high rent to income ratios; in 1977, 49 percent paid more than 25 percent of income for rent, compared with 40 percent in 1970.

The Report reviews the construction manpower, materials and land resources, and concludes there should be no supply problems at the anticipated low levels of production in 1980. The construction industry is expected to experience a decrease of 9 to 15 percent in year-long job requirements. Land prices have been rising rapidly in some areas due to a shortage of buildable land caused, in part, by land use controls. Regulations and fees also increase the cost of developed land. Mortgage loan originations are expected to decline in 1980 as activity decreases and prices and interest rates remain high. Loanable funds at depository institutions will be in short supply, so that privately insured and Federally guaranteed mortgage pools must be relied upon to sustain the flow of funds into the mortgage market.

The appendices to the Report provide much more detail on various aspects of housing production and the stock of housing. Appendix A includes discussions of Federal aids to housing, including tax incentives and housing credit assistance in calendar years 1978 and 1979, and cash subsidy programs in fiscal years 1978 through 1981, with 1980 and 1981 estimated. Appendix B has material on the preservation of existing housing and neighborhoods, with analyses of changes in the condition of housing and neighborhoods, of expenditures for housing maintenance and repair and construction improvements, and Federal programs for housing, community development, and related research which contribute to the conservation and preservation of the nation's housing stock and residential neighborhoods. Appendix C covers the nonfinancial resources (labor, materials, and land) required for housing production. Appendix D provides data on the availability of funds for housing in 1976 through 1979 and presents an assessment of the availability of mortgage funds for housing in 1980.

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1980 National Housing Production Report

I. Introduction

Section 1603 of the Housing and Urban Development Act of 1968, as amended by the Housing and Community Development Amendments of 1978, requires the President to transmit to the Congress an annual report which reviews the progress made in achieving housing production objectives during the preceding year; projects the level, composition and general location of production and rehabilitation activity during the current year and assesses the availability of required resources; specifies Federal programs or policies needed to achieve the objectives; updates estimates of the housing needs of lower income households; reviews the progress made in achieving goals of conserving and upgrading older houses and neighborhoods, expanding homeownership and equal housing opportunities, and assuring reasonable shelter costs; and reports on methods developed and legislative and administrative actions needed to monitor and support achievement of these goals.

This report describes the state of the housing inventory in 1977 and 1978, housing production in 1978 and 1979 and expected developments throughout 1980, and addresses the issues specified by Section 1603. The appendices to this report present detailed statistics and analyses to support its findings. Appendix A describes Federal aids for new housing production and for support to and general preservation of the existing housing stock; Appendix B describes the condition in 1977 of the existing stock and levels of maintenance and improvement in 1978 and 1979; Appendix C assesses the availability of manpower, materials and land for housing production; and Appendix D examines housing finance and the sources of funds to meet expected production needs.

This report covers housing production in both 1978, a peak year in the most recent housing cycle, and 1979, when the anticipated cyclical downturn finally occurred, and discusses anticipated developments in 1980. Housing inventory characteristics for these and prior years are also discussed, based on available data.

Calendar year 1978 was an exceptionally productive time for the housing industry. Starts and completions of single-family housing, and also sales of new and existing houses soared at or near record levels. The decline predicted for many of these indicators did not occur in 1978, due to continued strength in the economy, the demographic pressures exerted through net household formations, a maintenance of mortgage funds at adequately high levels, and the interlocking effects of inflationary expectations with the tax benefits and potential for equity appreciation which arise from homeownership. As a result, many households were willing and able to ignore the "psychological barrier" of 10 percent mortgage interest rates and continued to purchase sales housing.

Calendar year 1979 presented another picture. The decline in residential construction that had been predicted since late 1977 finally materialized and construction starts for the year were about 14 percent below the 1978 level. Starts of single family houses fell at a greater rate - almost 17 percent - than starts of multifamily units, which were down about 6 percent. Although existing homes sales in 1979 were only moderately below (about 4 percent) the record sales level of 1978, new home sales dropped 12 percent from the record levels of 1977 and 1978, with the decline accelerating at the end of the year. Record sales prices and interest rates, uncertainty about the economy, an apparent one year decline in the rate of household formations (about 300,000 fewer than average), and a tightening in the supply of mortgage credit in the fourth quarter all contributed to the slowing pace of construction activity in 1979.

Throughout this period, even as home sales declined slightly, there was a continued shift to homeownership which increasingly has taken many middle and upper-income households out of the rental market. As a result, the ability of apartment owners to raise rents enough to meet increasing operating costs in the face of weakened demand was somewhat limited. Due to lagging rents and other factors, interest in the production of multifamily housing has been weak. Construction of unsubsidized multifamily housing (including condominiums and co-operatives) was about the same in 1977 and 1978, and declined in 1979. Unsubsidized multifamily starts intended for rental occupancy were down by about 4 percent in 1978, and another 10 percent in 1979. The rental market is, above all else, being weighed down by an underlying question of affordability: in 1977, almost 49 percent of all renters were paying one fourth or more of their income for rent, compared with less than 40 percent in 1970. This trend in conjunction with the estimated 5.3 million lower income households who lived in physically inadequate housing in 1977, is enough to clearly indicate that while great strides were made in housing in 1978, and even 1979, much still needs to be done to alleviate the nation's housing problems.

II. Housing Production and Marketing in 1978 and 1979

Housing production in 1978 continued the recovery which had begun in mid-1975, and housing marketing repeated or exceeded the record high levels established in 1977. Total private housing starts for the year were 2.020 million, up 1.7 percent from 1977, displacing 1977 as the fourth best year in history. Total public and private starts totalled 2,023,300 units. The average seasonally adjusted annual rate of 2,078,000 private starts in the fourth quarter of 1978 was virtually the same as the 2,090,000 rate in the fourth quarter of 1977, and was above the total for the year. After a slow start in January and February due to adverse weather conditions, when the starts rate dropped to about 1.7 million, the rate remained above 2.0 million for the remainder of the year. The peak monthly seasonally adjusted annual rates were 2.176 million in April, and 2.107 million in November.

In calendar year 1979, housing production and marketing turned downward from the recent peak levels achieved in 1978. Total private housing starts in 1979 were 1.744^{p} million, 13.7 percent below the 1978 figure. Total public and private starts were 1,747,600^{p} housing units. The seasonally adjusted annual rate exceeded 1.9 million in only one month of 1979, while it exceeded 2.0 million in nine months of 1978. In the last quarter of 1979, the rate averaged 1,583,000^{p}, almost 23 percent below the fourth quarter of 1978.

Single family production in 1978 was only marginally below the modern record for single family starts which was set in 1977. The total was 1,433,300 privately owned single family starts and the 1977 figure was 1,450,900.

In 1979, 1,193,200 single family houses were started, or 16.7 percent fewer than in 1978. This, however, was the fourth highest one family starts level on record, exceeded only in 1978, 1977, and 1972.

Privately owned multifamily starts in 1978 reached 587,000, 9.5 percent above the 1977 level of 536,200 units. This was the fifth consecutive year of increase for the multifamily sector. However, most of the increase between 1977 and 1978 was due to increased construction starts under the Section 8 Lower Income Housing Assistance Program. Unsubsidized starts of privately owned multifamily units remained at about the same level in 1977 and 1978.

In 1979, privately owned multifamily starts declined by 6.2 percent, only two-fifths as much as single family starts. The total was 550,400 units, above the 1977 level and the second highest multifamily starts total since 1973. In the first 6 months of 1979, the annual rate averaged 539,000 units, and rose to 554,000 units in the second half of the year. However, in the last quarter the rate dropped back to 531,000, and it was 481,000 in the last month of the year.

Mobile home shipments, like single family starts, were slightly lower in 1978 than in 1977; 275,600 units were shipped by manufacturers in 1978, compared with 277,000 shipped to dealers and park developers in 1977.

In 1979, mobile home shipments were stable at 276,900 units. The shipment rate reached 311,000 in January 1979, below the recent peaks reached in late 1977 and early 1978, and then varied between 268,000 and 293,000 for most of the year until it fell to 251,000 in November, and 241,000 in December.

About 1,800,500 new privately owned housing units were authorized in 16,000 permit issuing places in 1978; this is a new data series. Under the older series for 14,000 permit issuing places, the Bureau of the Census reported that 1,686,800 private housing units were authorized by building permits in 1978, about the same as the 1,690,800 authorized in 1977. Single family permits were down slightly (3 percent), from 1,126,100 in 1977 to 1,092,300 in 1978. Permits for units in structures with two or more units rose 5.4 percent from 564,000 in 1977 to 594,500 in 1978. Multifamily permits were 33.4 percent of all permits issued in 1977, and rose to a share of 35.2 percent in 1978.

In 1979, the number of privately owned housing units authorized in 16,000 permit-issuing places decreased 14.0 percent from 1978 to 1,548,800. Permits for single family units fell the most, 17.5 percent to 976,000. Multifamily permits for two or more unit structures declined 7.3 percent to 572,800 units. Permits for multifamily units represented 37 percent of all housing unit authorizations in 1979, the highest proportion since 1974, when it was 40 percent.

At the end of 1979, builders held permits for 185,700 units which were not yet started. This was 10.6 percent below the 207,800 units authorized by unused permits in the hands of builders at the end of 1978. About 58 percent of the unused permits at the end of 1979 were for multifamily units.

During 1978, 2,147,400 newly-built, privately owned housing units had been added to the nation's housing inventory (exclusive of additions of housing units from existing structures). This was 12.2 percent above the 1,914,600 units added in 1977. New private conventionally built housing completions totaled an estimated 1,867,500 units, 12.7 percent more than the 1,657,100 completed in 1977. In 1979, about 2,150,000 new housing units (conventional and mobile) were added to the nation's housing stock, virtually unchanged from 1978. Conventionally built housing completions added 1,868,200 units, also unchanged from 1978.

Single family unit completions rose to 1,369,000 units in 1978, a record in this series and 8.8 percent above the previous high of 1,258,400 in 1977. In 1979, one family completions were 1,298,900, 5 percent below 1978. Completions of units in structures with two or more units added 498,500 units to the inventory in 1978, almost 100,000 units and 25 percent more than the 398,700 units added the prior year. In 1979, two plus unit completions totalled 569,300 units, 14 percent above 1978.

Placements on site in 1978 of mobile homes ready for occupancy amounted to 279,900 units, 8.7 percent more than the 257,500 units placed on site in 1977. In 1979, on-site placements of mobile homes totalled an estimated 282,000 units, slightly above the 1978 level.

At the end of 1978, 1,310,200 housing units were under construction, up 8.5 percent from the 1,208,000 started but not completed at the end of 1977. About 42 percent, or 545,600 units, were in multifamily structures, compared with 478,200 at the end of 1977. At the end of 1979, 1,147,900 units were under construction, 12 percent below 1978. About 44 percent, 504,000 units, were in multifamily structures.

New single family house sales in 1978 repeated the record volume set in 1977. Merchant builders sold 817,000 speculatively built single family houses in 1978, practically the same as many as the 819,000 sold in 1977. An all-time monthly record was set in October 1978, when sales recorded a seasonally adjusted rate of 900,000 new houses. At the end of 1978, builders were carrying an inventory of 419,000 units, the equivalent of 6.2 months of sales at the seasonally adjusted December sales rate.

In 1979, new single family house sales declined to 712,000, down 13 percent from 1978. At the end of 1979, builders had an unsold inventory of 405,000 units, equal to 8.8 months supply at the seasonally adjusted December sales rate. Of the 405,000 houses actually for sale at the end of 1979, 117,000 were completed, 228,000 were under construction, and 59,000 were permitted but not started.

In 1979, new home sales fell 9 percent from 1978 in the Northeast to an annual total of 71,000 and were down 21 percent in the North Central, to 115,000 houses. Sales fell 15 percent in the West to 223,000 units, and 9 percent in the South, to 303,000 units, despite continued migration into these region.

Existing single family home sales set a new record in 1978, as demand for homeownership remained strong. These sales rose 9.3 percent over 1977, to a total of 3,905,000 compared with 3,572,000 the prior year. In 1979, existing home sales declined only 4 percent from 1978 to a level of 3,747,000 houses. In the last two months of 1979, the rate fell below 3.6 million, but was still above annual levels of every year prior to 1977. These sales levels reflected the continued strength of the interest in and demand for homeownership.

Existing home sales set records in all four regions during 1978, rising from 2.0 percent above 1977 in the North Central region, to 19.2 percent above 1977 in the South, which accounted for 78 percent of the national increase in existing home sales in 1978. In 1979, existing sales at 578,000 were unchanged in the Northeast, were down 8 percent in the North Central to 971,000, down 5 percent in the South to 1,564,000, and down 3 percent in the West to 631,000 homes.

Multifamily rental absorption rates increased slightly in 1978. About 227,800 unfurnished, unsubsidized rental apartments in buildings with five or more units were completed in 1978, up 17.2 percent from the

194,400 completed in 1977. Almost 82 percent of the 1978 completions were rented within three months, compared with a three month absorption rate of 80 percent in 1977. In 1979, the absorption rate for newly completed, privately financed and unsubsidized apartments in buildings with five or more units rose again to just over 83^{p} percent. An estimated 250,000 such units were completed in 1979, almost 10 percent more than in 1978.

About 54,500 new condominium units in five or more unit structures were completed in 1978, compared with 43,300 in 1977. The proportion of condominium units sold within three months was 77 percent in 1978, and 71 percent in 1977.

Condominium starts in 1978, based on builders' intentions at time of start, reached a level of 156,000 units up 32 percent from 118,000 such starts in 1977. Of the 1978 condominium starts, 42,000 units or almost 27 percent of the total were in one unit structures (attached or detached). This was about the same as the 41,000 such starts in 1977. Another 25,000 or 16 percent of the total were in structures with two to four units; this was one-fifth of all the two-to-four unit starts, about the same proportion as in 1977, but an increase over the 20,000 such starts in 1977. Of the 462,000 starts of units in structures with five or more units in 1978, 89,000 or 19.3 percent were intended for sale as condominiums. In 1977, 57,000 units or 13.8 percent of the 414,000 starts in five or more unit structures were intended to be sold as condominiums. Starts of units intended for rental occupancy amounted to 469,000 units in 1978, 3 percent more than the 455,000 rental starts in

1977. After adjusting for starts under the rental subsidy programs, unsubsidized rental starts were down about 8.5 percent in 1978; unsubsidized multifamily rental starts were down about 10 percent. Of the 1978 starts, 14,000 units were one unit structures, 82,000 were in two to four unit structures, and 373,000 were in five or more unit structures.

National production levels in 1978, as in 1977, exceeded expectations. Expectations were trimmed for 1979, and production generally fulfilled the forecasts of most analysts. The Tenth Annual Report on the National Housing Goal had anticipated overall production in 1978 of 2.06 to 2.24 million units, including 0.26 to 0.34 million mobile home shipments, about 1.3 million conventional single family starts, and 0.50 to 0.60 million multifamily starts. The actual level of 2.30 million units, including 0.28 million mobile home shipments, 1.43 million single family starts, and 0.59 million multifamily starts, was due to the continued strong demand for housing, particularly for owner occupied housing. New single family sales, which had been expected to drop below 800,000, in 1978 remained above, at 1977 levels. Increasing demand for condominiums buoyed the multifamily sector.

In the Fall of 1978, most housing forecasts placed 1979 housing starts at 1.7 million units or in a range of 1.7 to 1.8 million. Single family starts estimates varied from 1.1 to 1.3 million, and multifamily starts were expected by most analysts to fall between 0.50 and 0.56 million. Mobile home shipments would add 0.26 to 0.30 million units for a total production forecast of 1.96 to 2.10 million units. The actual production level of 2.03 million was at the midpoint of the expected range.

These patterns of housing production were due to several factors:

- the economy continued its steady expansion in 1978 as GNP grew 4.8 percent in constant dollars from the fourth quarter of 1977 to the fourth quarter of 1978. In 1979 economic growth slowed, and actually dipped in the second quarter, resuming a slow growth in the next two quarters. The growth in constant dollars from fourth quarter 1978 to fourth quarter of 1979 was only 1.0 percent.
- the number of employed workers increased by almost 3.3 million during 1978, to 95,831,000 employed persons in December 1978. Employment growth slowed to under 2.1 million in 1979, with 97,912,000 employed persons in December 1979. The unemployment rate fell from 6.3 percent in December 1977 and January 1978 to between 5.8 and 5.9 percent in the months from August 1978 through December 1979.
- per capita disposable personal income, in constant (1972) dollars, rose 3.4 percent during 1978, from $4,285 in 1977 to $4,449 in 1978. In 1979, per capita disposable personal income averaged only $4,510 for the year, up just 1.4 percent from 1978.
- the number of households in the United States increased by 1,888,000 in the twelve months prior to March 1978, a net increase from household formations equalled only once before, in 1971-72. The average net increase from 1970 to 1978 was 1,579,000 per year. In the 12 months prior to March 1979,

the number of households increased by only 1,300,000, thereby temporarily slowing the demand for housing.

- the tax benefits to homeownership and the potential for equity appreciation in an inflationary period has further encouraged the normal preference for homeownership, and increased demand for such housing. Because of the deductability of mortgage interest payments, high interest rates were not the deterrence to borrowing that might have been expected, at least in 1978 and 1979. In late 1979, however, record mortgage interest rates and sales prices seemed to have a dampening effect on demand.
- losses of savings from thrift institutions, which ordinarily had occurred when interest rates on competing investments rose, were averted by the introduction in June 1978 of the new money-market savings certificates (MMC's) which offered savings interest rates tied to Treasury-bill rates. As a result thrift institutions could compete for savings with open-market instruments and have adequate funds to provide the new mortgage loans demanded by consumers. Although the competitive edge with commercial banks was removed in 1979, MMC's were still an important source of funds to thrifts.

Thus, patterns of economic growth, levels of employment and incomes, coupled with demographic factors giving rise to increasing household formations, formed the basis for strong housing demand in 1978 and then weakening demand in 1979. This demand was focused particularly on the sales housing segment of the market, due principally to the tax and investment benefits associated with homeownership. Adequate funds were available from thrift institutions, primarily as a result of the introduction of money market certificates, to enable consumers to realize their demand for housing through 1978 and into 1979, until economic conditions, uncertainty, and reduced availability of mortgage funds resulted in a housing downturn.

The demand for mortgage funds remained quite strong again through most of 1979, despite increasing monetary restraint. As a result, effective interest rates on conventional loans for new and existing homes rose from 10 percent in December 1978 to about 12 percent by the end of December 1979. Effective interest rates on FHA and VA loans similarly rose from 10.16 percent to 12.5 percent. There was little or no dampening of demand for mortgage credit until the sharp increases in mortgage commitment rates resulting from the Federal Reserve's October policy shift. With market rates rising more than 150 basis points overnight, usury ceilings in many states suddenly became binding - even in some states where such ceilings were established through an index of previous period money market or capital market yields.

In March 1979, changes in the MMC regulations took away the thrift's 1/4 percent differential on MMC's whenever 6 month Treasury Bill rates equaled or exceeded 9 percent, and prohibited the compounding of the interest earned on the certificates. The changes severely reduced the competitive edge enjoyed by S&L's and severely hurt mutual savings banks. Before the changes, S&L's and MSB's had a combined net new savings inflow of $10.8 billion during the first quarter. Following the changes, net new savings inflows for the next three quarters at S&L's averaged $1.6 billion, while MSB's suffered net savings outflows, totaling $7.6 billion. This reduction in savings inflows was not due entirely to the loss of competitive advantage on MMC's, since total net inflows into MMC's, including those at commercial banks, were 40 percent less in the second and third quarters than in the first. Thus thrifts had a reduced share of a reduced net MMC increase. With net new savings inflows severely cut back, thrifts financed their mortgage lending primarily through alternative sources of funds. As in 1978, S&L net loan repayments ($49.7 billion) while not as large as in the previous year accounted for the major source of funds. With nearly 75 percent of all deposits in various forms of high yielding money market certificates, interest credited on loan repayments ($24.2 billion) became the second most important source of funds for mortgage financing. Thrifts also increased their net sales (sales less purchases) of mortgage loans ($6.2 billion) as well as increased their advances from the FHLBB ($8.3 billion) and other borrowings ($4.1 billion).

While the six month Money Market Certificates were instrumental in preventing substantial disintermediation at thrift institutions in 1979, an older market innovation, the mortgage-backed security, was also very important to the supply of mortgage funds in 1979. Federally supported mortgage pools contributed $30.9 billion in residential mortgage credit during 1979, up from $22.7 billion in 1978. In addition, privately insured pools of conventional mortgage loans more than doubled over 1978 levels, adding another $2.5 billion through secondary market sales.

The median price of a new house sold in the United States increased 14.1 percent, from $48,000 to $55,700 from 1977 to 1978, and increased by another 12.9 percent to $62,900 in 1979. In the North Central region, the median price increased by 15.0 percent to $59,200 in 1978, and by 7.8 percent to $63,800 in 1979. In the West, it increased 14.6 percent to $61,300 in 1978, and 13.7 percent to $69,700 in 1979. In the South, the increase was 14.2 percent to $50,300 in 1978, and 13.9 percent to $57,200 in 1979. In the Northeast, the increases were 12.6 percent to $58,100 in 1978, and 13.4 percent to $65,900 in 1979. The median price of existing homes rose 13.5 percent in 1978, to $48,700 from $42,900 in 1977 and 15 percent to $56,000 in 1979. The price of an existing home sold in the West in 1978 rose 16.4 percent to $66,700, 1979, the median price was $78,000, up 17 percent from 1978 and 10 percent above the new house sales price. In the other regions, existing home prices rose at rates equal to or slower than new house prices, and stayed below the new house prices. For the most part these price increases were greater than the increases in costs of construction or in the Consumer Price Index. The CPI rose 7.6 percent from 1977 to

1978 and 13.3 percent from 1978 to 1979. The cost of construction materials rose 11.4 percent in 1978 and 10.2 percent in 1979, and union hourly wage rates and benefits for selected building trades rose 6.2 percent in 1978 and 7.0 percent in 1979. Overall construction costs rose about 9 percent in 1978 and 11 percent in 1979, much slower than the price of a new house. Thus demand was important in raising prices.

III. Outlook for Housing Production and Marketing in 1980

Between 1.30 and 1.50 million conventional housing units are expected to be started during 1980, a decrease of 14 to 25 percent from 1979. Single family starts would account for about 1.00 to 1.10 million units, while multifamily starts would comprise 0.30 to 0.40 units. Mobile home shipments are projected to vary between 220,000 and 240,000 in 1980, for a total housing production initiation of 1.52 to 1.74 million units. Completions of conventional housing units and mobile home placements should produce from 1.75 to 1.85 million additions to the nation's housing inventory. The 1.5 to 1.6 million conventional completions would include about 1.1 million single family units and about 450,000 multifamily completions.

Sales of speculatively built new homes are anticipated to total between 550,000 and 650,000 in 1980, down 8 to 23 percent from 1979. Absorption of new rental units in multifamily structures could stabilize or increase slightly to a three month rate of about 84 percent.

These levels of housing production and marketing would provide sufficient housing for the new households formed during 1980, but make possible the replacement of only 200,000 to 300,000 of the least desirable housing units. These levels of replacement are minimal compared to the 3.5 million lower income renter and the 1.6 million lower income owners who occupied physically deficient housing in 1977. It is likely that more of the least desirable housing units would be replaced if production, particularly of multifamily rental housing, were higher.

Based on anticipated housing production levels, homeowner vacancy rates are likely to be maintained at about 1.0 percent. Rental vacancy rates, which have been about 5.0 percent since the third quarter of 1977, are expected to continue at or just under that level. The vacant stock for rent and for sale are of a higher quality than ten years ago, so that these rates are not as onerous as they appear to be. However, these vacancy rates suggest that many local housing markets will continue to be tight. The tightness will induce increased investment in and use of the existing stock.

In 1978, $75.8 billion was expended on new residential construction, while nearly half again as much, $37.5 billion, was expended on maintaining, repairing, and making construction improvements to the existing housing inventory. In 1979, $77.1 billion went for new construction and $44.5 billion was used to improve or maintain the existing inventory.

Additions and alterations to residential structures amounted to $12.2 billion, and major replacements, $8.1 billion in 1978; the 1979 figures are estimated at $13.2 billion and $8.6 billion. Gross private residential investment constituted about 5.1 percent of GNP in 1978 and 4.8 percent in 1979 ($113.5 billions). The share of GNP is expected to decline as new residential investment recedes further from 1978 levels. Investment in the existing inventory, which has been steadily increasing in real terms for several years, is expected to remain stable in 1980, at about $49 billion in current dollars.

IV. Trends in the Existing Housing Stock

This section of the 1980 Housing Production Report covers the changes in the size and composition of the housing inventory. It also reports on changes in housing and neighborhood quality.

Inventory changes

By November 1977 the nation's housing stock had grown to a total of 82.4 million units, an increase of 1.5 million units and 1.9 percent from November 1976. About 98 percent, or 80.7 million units, were intended for year-round use. The total vacancy rate for year-round units was 6.7 percent. Of the 5.4 million vacant units, approximately 3.3 million were either already sold or rented and awaiting occupancy, held for occasional use such as second homes, or otherwise not available for rent or sale. There were slightly more than 2.1 million vacant units on the market for rent or sale, or 2.6 percent of the year-round housing stock. In 1976 marketable vacancies totalled 2.2 million units, 2.7 percent of the year-round stock.

By November 1978, preliminary data indicate that the housing stock grew to 84.6 million units, including 1.8 million seasonal units. The 82.8 million year-round units included 5.7 million vacant units. The rental vacancy rate, 5.4 percent and the sales vacancy rate, 1.2 percent, were unchanged from 1977.

Occupied units increased by 1.3 million from 1976 to 1977, to 75.3 million units. Owner occupied units increased by under 0.9 million to 48.8 million, and renter occupied units increased by over 0.4 million to 26.5 million. In 1977, owner occupied units accounted for almost 64.8 percent of all occupied units, up from 64.7 percent in 1976 and 64.6 percent in 1975. In 1978, the ownership rate increased dramatically to 65.2 percent, as the number or owner-occupied units increased by about 1.5 million to 50.3 million, while the number of renter-occupied units increased only 0.3 million to 26.9 million units. Occupied condominium units increased to 865,000 in 1978 from 665,000 in 1977; over half of the increase came from conversions.

Between 1970 and 1977, the stock of year-round housing units increased fastest in rural areas, a 33.2 percent increase of 5.9 million units from 17.7 million in 1970 to 23.6 million in 1977. The stock in urban areas grew at less than half that rate; the urban increase was 14.2 percent, as the stock grew by 7.1 million units from 50.0 million in 1970 to 57.1 million in 1977. Inside Standard Metropolitan Statistical Areas (SMSAs), the stock grew by 18.4 percent in that period, from 46.1 million to 54.6 million units. In central cities of SMSAs, the stock grew only 9.8 percent, from 22.6 million to 24.8 millions units, while in urban and rural areas inside SMSAs but outside central cities, the stock grew 26.6 percent, from 23.5 million to 29.8 million units. The housing stock in urban and rural areas outside SMSAs grew at a faster rate than inside SMSAs as a whole. Outside SMSAs, the increase from 1970 to 1977 was 21.0 percent, as the stock grew from 21.6 million to 26.2 million units.

From 1970 to 1977, one family units increased at a slower rate, 16.1 percent, than the stock as a whole, and fell from 69.1 percent of all units in 1970 to 67.3 percent in 1977 (67.6 percent in 1976). Units in two to four unit structures declined from 13.3 percent to 12.9 percent of the total from 1970 to 1977 (they were 12.8 percent in 1976). Units in structures with five or more units, and mobile homes increased their share of the stock; apartments rose from 14.5 percent to 15.2 percent (15.0 percent in 1976), and mobile homes from 3.1 percent to 4.6 percent (unchanged from 1976).

From 1973 to 1977, almost 3.3 million housing units which existed in 1973 were removed from the inventory; almost all were year-round housing units. Under 2.7 million had been occupied in 1973, 1.1 million by owners and less than 1.6 million by renters. Just under 0.6 million of these year round units had been vacant. About 56 percent of the total were in urban areas, and 44 percent were rural units. Of all units removed, 1.4 million were one family houses, 0.6 million were in two to four unit structures, over 0.5 million were in structures with five or more units, and 0.7 million were mobile homes which had been occupied in 1973. Also, of the total number of year-round units removed, 1.8 million or over 54 percent had been built before 1940, and 0.9 million or over 27 percent had been built between 1959 and 1973. The removals eliminated over 0.6 million units, most of them renter occupied or vacant, which had lacked some or all plumbing facilities.

Trends in Housing Quality

Decennial censuses of housing have limited measures of housing quality. Table 1 shows the proportion of housing units which are inadequate, using the measures of quality most commonly cited in years past from decennial census results. Measures of adequacy focused heavily on plumbing equipment, including whether a unit had bathing facilities, running water, and flush toilets; these have all been combined into one category in Table 1, "lacking some or all plumbing."

The other common measure of housing quality was the overall physical condition of the unit; those units classified as "dilapidated" or "needing major repairs" were deemed substandard. It has not been possible to measure this condition precisely. The 1960 Census of Housing reported 2.9 million dilapidated units, but subsequent re-evaluation of the Census indicated a substantial undercount, and significant disagreements among observers on how to classify individual units. The "true" estimate was placed at 4.0 million units, about 7 percent of the housing stock. In 1970, the Census was conducted by mail, and the subjective estimate of overall housing quality was dropped from the questionnaire; but a subsequent 1971 survey, based on the 1970 Census, indicated that there were 3.1 million dilapidated units. No comparable data have been collected since 1970.

Table 1
Measures of Housing Inadequacy

	1940	1950	1960	1970	1974	1977
Percent of all units Lacking some or all plumbing	45.2	35.4	16.8	6.5	4.0	3.1
Percent of all units Dilapidated or needing major repairs	17.8	9.8	6.9	4.6	NA	NA
Percent of all units substandard: Dilapidated or lacking plumbing	49.2	36.9	18.2	9.0	NA	NA
Percent of Occupied units with 1.51 or more per room	9.0	6.2	3.6	2.0	1.1	0.9
Percent of Occupied units with 1.01 or more persons per room	20.2	15.8	11.5	8.0	5.3	4.4
Percent of Occupied units with one or more subfamilies	NA	NA	NA	NA	1.5	1.4

Sources: Decennial Censuses of Housing, U.S. Department of Commerce, Bureau of the Census, and the Annual Housing Survey, U.S. Department of Commerce, Bureau of the Census and U.S. Department of Housing and Urban Development, Office of Policy Development and Research.

NA - Not Available

The most common measure of housing space is the ratio of persons to rooms within a dwelling unit. The 1940's standard of adequacy was 1.5 or fewer persons per room; by that standard, as shown in Table 1, overcrowding has virtually disappeared. More recently, overcrowding has been defined as more than 1.0 persons per room. Even by this measure, overcrowding is diminishing rapidly, from 20.2 percent in 1940 to 8.0 percent in 1970, and 4.4 percent in 1977.

As shown in Table 1, there is some overlap between the measures of housing inadequacy, since some units have more than one defect. For example, the percentage lacking plumbing, and the percentage dilapidated, add up to 11.1 percent of the total in 1970; but 2.1 percent of the units had both deficiencies, so the total that were substandard physically was only 9.0 percent. Over time, the percentage with more than one deficiency has been dropping, as housing quality improved generally; the reduction in the number of "doubly inadequate" units is a further gauge of progress in housing quality.

Table 1 demonstrates the improvements in housing quality as measured by the older, simpler standards. As these older standards are achieved, more detailed and more precise standards to measure further improvement are developed. In order to measure housing quality more precisely (among other objectives), the Department of Housing and Urban Development initiated an Annual Housing Survey in 1973 which is conducted by the Bureau of the Census. The survey describes housing conditions in much more detail than previously had been possible. The Annual Housing Survey asks about the quality of the plumbing system, for example, rather than merely whether the housing unit has complete plumbing facilities. About 35 indicators of housing inadequacy have been contained in the Survey. Data for the first five years have now been collected and processed; these are summarized in Appendix B.

In order to analyze the current condition of the American housing stock, many of the measures of housing adequacy contained in the Survey have been combined in this Report into categories which assess the quality of major components of a housing unit-- the electrical system, plumbing, the kitchen, the bathroom, the heating system, the roof and basement, and interior walls, ceilings and floor. Incomplete or malfunctioning equipment or materials in any of these components is treated as a housing defect. The analysis of housing quality excludes measurements of the quality of the neighborhood, or the public services provided to the residents, and focuses only on the quality of the housing unit itself.

Table 2 lists the number of occupied housing units reporting each type of defect. The most common structural defects are leaks in roof or basement; leaky basements are particularly common, with almost 23 percent of all homes that have basements reporting leaks. Inadequate heating equipment, defined as sole heating source being room heaters without vent or flue, fireplace, stoves or portable heaters, and recent breakdowns in heating equipment, are also reported quite often. This category increased by 242,000 units from 1976 to 1977, with almost all of the increase occurring in owner-occupied units in the suburbs and outside SMSAs, suggesting it is not always a serious problem. A large number of units with unvented room heaters and no other serious defect, about 2.4 million in 1977, were in the South census region. The least common type of defect reported is lack of heating equipment; in some climates, as in most of Hawaii, this is not a defect, of course.

Neighborhood quality or condition is even more difficult to measure than housing quality. Table 3 lists eleven indicators of neighborhood condition, six community services which are important to the quality of life in a neighborhood, and some results of residents' rating of their neighborhood and an expression of their desire to move out of the neighborhood. These indicators may not describe comprehensively, sharply, or objectively, the actual conditions in neighborhoods. but they do represent the feelings and opinions of people about their living environment. The subjective reactions of people to their surroundings may be as important in many respects as the objective circumstances about those surroundings.

These neighborhood indicators do not show the same general trend of improvement that was found in the housing quality indicators. In most cases the situation is worse than in 1973, but in a number of cases there recently has been improvement, based on the 1975 to 1977 data. The neighborhood setting of housing units, the "suitable living environment" specified in the Housing Act of 1949, clearly is a subject which requires more investigation and analysis to understand the needs and to determine whether public policy can be used to bring about improvement.

Table 2
Occupied Housing Units With Specified Defects
1973, 1975 and 1977
(In Thousands of Units)

Type of Defect*	All Units Reporting the Defect			
	1973	1975	1977	Change 1973 - 77
Occupied Units (Total)	69,337	72,523	75,280	5,943
Kitchen - Shared or				
no complete kitchen facilities	1,575	1,428	1,258	-317
Complete kitchen, but not all facilities usable	NA	476	525	NA
Electrical				
Some or all wiring exposed	2,749	2,336	1,003	-1,746
Lacking working outlets in some or all rooms	3,661	2,528	2,147	-1,514
Shared or no bathroom	2,957	2,315	2,088	-869
Plumbing				
Lacking some or all facilities	2,471	2,076	1,805	-666
Breakdown in water supply	1,728	1,591	1,783	+55
Breakdown in sewer or septic tank/ cess pool	776	746	818	+42
Breakdown in plumbing equipment	1,366	1,123	1,198	-168
Heating				
No heating equipment	331	309	353	+22
Inadequate heating equipment	4,553	4,534	4,848	+293
Breakdown in heating equipment	4,956	4,034	4,175	-781
Water leaks				
Through Roof	5,260	4,491	4,517	-743
In basement	9,346	8,475	8,148	-1,198
Interior ceilings and walls				
With open cracks or holes	4,179	3,845	3,891	-288
With broken plaster or peeling paint	3,237	NA	NA	NA
With broken plaster	NA	2,518	2,490	NA
Interior floors with holes	1,332	1,298	1,324	-8

*The individual defects are not additive, since more than one defect within and among categories may be present in the same unit. The numbers exclude households failing to report or reporting "Don't Know."

Source: Annual Housing Surveys, U.S. Department of Commerce, Bureau of Census, and U.S. Department of Housing and Urban Development, Office of Policy Development and Research.

Table 3
Selected Indicators of Neighborhood Quality
Percent of Occupants Reporting Specified Indicator

	1973	1975	1977
Neighborhood Conditions			
Airplane Noise	)45.8%	16.5%	16.9%
Street Noise	)	34.8	31.6
Heavy Traffic	30.0	30.3	29.2
Streets Need Repair	14.1	17.2	18.3
Inadequate Street Lights	20.0	25.1	25.0
Crime	13.2	18.5	17.0
Odors	11.6	8.9	8.6
Litter	11.4	14.4	16.0
Commercial or Industrial Uses	13.5	17.1	20.7
Deteriorating Housing	8.7	9.5	10.2
Abandoned Buildings	5.8	6.9	7.0
Inadequate Services			
Public Transportation	36.1	42.0	34.7
Shopping	13.3	14.6	12.9
Schools	3.6	3.8	4.4
Police Protection	8.4	8.8	9.2
Fire Protection	4.3	5.2	NA
Hospitals or Health Clinics	11.8	13.1	14.7
Opinion of Neighborhood			
Fair	16.7	14.9	15.5
Poor	3.0	2.4	2.7
Poor and Want to Move	2.2	1.7	1.3

Source: Annual Housing Surveys, Department of Commerce, Bureau of the Census and Department of Housing and Urban Development, Office of Policy Development and Research

V. Trends in Tenure Preference and Structure Type

Tenure, as used here, does not refer to the term of holding property (length of residency), but to the manner of holding it, i.e., ownership versus rentership. This section examines trends toward homeownership and some of the reasons for it.

Section II of this Report, above, noted that new and existing home sales were at or near record levels in 1977 and 1978, with a downturn beginning in 1979. These sales rates reflect the increasing desire for homeownership, and for trading up in housing quality for those who are already homeowners. Table 4 illustrates this by expressing the volume of home purchases, i.e., new and existing home sales, plus construction of contractor-built and owner-built housing, as a percent of all homeowners in the nation.

Table 4
Home Purchases as Percent of All Homeowners, 1973-1979
(units in thousands)

	Number of Homeowners	New House Purchases	New Contractor or Owner Built	Existing House Purchases	Total Purchases	Total as % of Homeowners
1973	44,653	634	444	2,334	3,412	7.64%
1974	45,784	519	385	2,272	3,176	6.94%
1975	46,867	549	365	2,452	3,366	7.18%
1976	47,904	646	409	3,002	4,057	8.47%
1977	48,765	819	487	3,572	4,878	10.00%
1978	49,800e	817	514	3,905	5,236	10.51%
1979	50,700e	710p	480p	3,740p	4,930	9.72%e

e = HUD estimate

Sources: Annual Housing Survey, Bureau of the Census and HUD, Office of Policy Development and Research (PD&R); New One-Family House Sales Survey, Census and HUD/PD&R. Existing Home Sales, National Association of Realtors.

In 1974, total home purchases of 3,176,000 were equal to 6.94 percent of the 45,784,000 homeowners in that year. The ratio of purchases to the number of homeowners rose steadily thereafter, until in 1978, the 5,236,000 home purchases were equal to about 10.5 percent of the estimated 49,800,000 homeowners in that year. The ratio increased by over 51 percent in only five years. In 1979 the ratio decreased to about 9.7^{p} percent. The home purchase data, but not the number of homeowners, exclude condominium purchases in structures with two or more units. Inclusion of such data, if available, would increase the ratios shown.

Data on recent movers from the 1977 Annual Housing Survey show that, of the 15,791,000 households who moved in the 12 months prior to the Survey, 5,489,000 were owners after the move. Of these, 2,647,000 or 48 percent had been owners prior to the move, 2,050,000 had been renters who shifted to owners, and 793,000 were households with a new head with prior tenure of the household members unknown. At the same time, 1,290,000 prior owners shifted to renters, so the net gain to ownership among households who shifted tenure was 760,000 households. Among those who were owners both before and after the move, 1,172,000 moved within the same market area. While moving to be closer to the job or other reasons may have motivated the move, the desire for a better house is also frequently given as the main reason for the move. Of those households who had the same household head and who were homeowners prior to and after the move, at least two-thirds moved into a house with a higher market value than the previous residence. Thus, in addition to a net shift to homeownership, there was also a strong motivation to trade-up at work in the housing market.

The economic and financial advantages of homeownership, particularly in a time of inflation, are obvious. Outstanding indebtedness, even without the amortization, becomes a decreasing claim on the inflated value of the property so that equity is increased through no effort of the owner. The indebtedness is repaid over time in increasingly cheaper dollars. Income tax laws provide a further advantage: as the owner's income rises with inflation, the progressive nature of the tax schedule increases the marginal tax rate so that rising property taxes and higher interest rates become worth relatively more as tax deductions to the homeowner. For example if a taxpayer had taxable income, after deductions which did not include mortgage interest payments, of $32,000 in 1977, the taxpayer would have been in the 39 percent tax bracket with a Federal tax bill of $7,412. If the taxpayer's income, other deductions and housing costs were the same but the housing costs now included $4,000 in interest payments in the first year - approximately equivalent to 9 1/2 percent interest on a $42,700, 25 year mortgage loan - the deduction would drop the taxable income to $28,000 or the 36 percent tax bracket, with a Federal tax bill of $5,948. In effect, the deductibility of interest reduced the interest cost to $2,536, equivalent to an interest rate of about 6 1/4 percent on the same mortgage loan.

Given these advantages, it is not surprising that the rate of homeownership increases as income levels increase. Table 5 shows trends from 1970 to 1977 in the proportions of all households and of certain income and population subgroups and household types who are homeowners. In the first four lines, all households are divided into four equal groups, based on income. The first quartile group are the one-fourth of all households, regardless of tenure, with the lowest income; they are then separated by tenure to determine the ownership rate. Succeeding quartiles contain successively higher income groups, with the fourth having the highest income. The proportion of the lowest income group who were homeowners was almost 50 percent in 1970. The rate rose to slightly over 51 percent in 1973, but by 1977 had fallen back to 46.5 percent. Economic conditions and slower than average income growth in this group during the mid-1970's affected their ability to become homeowners.

The second quartile income group fared a little better; although there was a slight decline in the rate from 55.9 percent in 1973 to 55.4 percent in 1977, the latter rate was still above the 54.9 percent rate in 1970.

The two highest income quartile groups experienced steady growth in homeownership rates; the third quartile group increased its rate from 68 percent in 1970 to 71.6 percent in 1977, while the fourth quartile, the highest income group, increased its homeownership rate from 78.7 percent to 85.5 percent in 1977.

Table 5
Homeowners as Proportion of All Households By Income, Race or Ethnic Group, and Household Type 1970, 1973 and 1977 (Households in Thousands)

	1970			1973			1977		
	Owners	Renters	Percent Owners	Owners	Renters	Percent Owners	Owners	Renters	Percent Owners
Households by Income Quartile									
First Quartile	7,920	7,942	49.9%	8,900	8,434	51.3%	8,758	10,062	46.5%
Second Quartile	8,713	7,149	54.9	9,689	7,646	55.9	10,435	8,385	55.4
Third Quartile	10,780	5,082	68.0	12,003	5,332	69.2	13,479	5,341	71.6
Fourth Quartile	12,473	3,385	78.7	14,061	3,273	81.1	16,094	2,725	85.5
All Households	39,886	23,560	62.9	44,653	24,684	64.4	48,765	26,515	64.8
Black Households	2,568	3,607	41.6	3,024	3,938	43.4	3,470	4,486	43.6
Hispanic Households	979	1,273	43.5	1,189	1,565	43.2	1,558	2,056	43.1
All Others	36,339	18,680	66.0	40,440	19,181	67.8	43,737	19,973	68.6
Husband-Wife Households With No Nonrelatives	30,807	12,759	70.7	33,689	11,831	74.0	36,274	10,748	77.1
Husband Under 35 years	5,990	6,221	49.1	7,473	6,260	54.4	8,465	5,781	59.4
Husband 35 Years or Older	24,817	6,538	79.1	26,216	5,571	82.5	27,809	4,967	84.8
Male-Headed Households and Husband-Wife with Nonrelatives	1,298	1,142	53.2	1,633	1,399	53.9	1,775	1,943	47.7
Female-Headed Households	3,019	3,269	48.0	3,139	3,738	45.6	4,039	4,705	46.2
One-Person Households	4,763	6,388	42.7	6,193	7,716	44.5	6,677	9,119	42.3
Male	1,329	2,604	33.8	N/A	N/A	N/A	1,988	4,048	32.9
Female	3,433	3,785	47.6	N/A	N/A	N/A	4,689	5,071	48.0

Source: Annual Housing Surveys, 1973 and 1977, U.S. Department of Commerce, Bureau of the Census, and U.S. Department of Housing and Urban Development, Office of Policy Development and Research

Homeownership rates are closely related to income. In 1977, households with less than $4,000 in income had homeownership rates of less than 44 percent. Households with incomes from $4,000 to $6,000 had rates of about 50 percent; the rate rose to almost 52 percent in the $6,000 to $7,000 category, 53 percent from $7,000 to $10,000, and 58 percent from $10,000 to $12,500. Thereafter the rate rose rapidly, to over 66 percent in the $12,500 to $15,000 range, 72 percent in the $15,000 to $20,000 range, almost 81 percent in the $20,000 to $25,000 range, over 86 percent in the $25,000 range, over 86 percent in the $25,000 to $35,000 group, and almost 90 percent at $35,000 or more annual income. If income and marginal tax rates were the only factors affecting the desire and ability to become homeowners, it would appear that only about 10 to 15 percent of all households would be renters with 85 to 90 percent preferring homeownership. Instead, 35.2 percent of all households were renters in 1977, down from 35.6 percent in 1973 and 37.1 percent in 1970.

Table 5 also shows homeownership trends for some population subgroups and household types. Blacks increased their homeownership rates from 41.6 percent in 1970 to 43.6 percent in 1977. Hispanic households had a decline, from 43.5 percent in 1970 to 43.1 percent in 1977. Whites and others increased from 66.0 percent to 68.6 percent over the period. Hispanics were the fastest growing group in this seven year period; Hispanic households increased in number by 60.5 percent, compared to 28.8 percent for Black households, 15.8 percent for Whites and others, and 18.7 percent for all households. The number of Hispanic homeowners increased by 59 percent, a slower growth than the growth in all Hispanic households, but a faster growth than experienced by other groups.

Black homeownership increased by 35 percent, and White and other homeowners increased by 20 percent from 1970 to 1977.

Husband-wife households have the highest homeownerhip rates among all household types, rising from 70.1 percent in 1970 to 77.1 percent in 1977. If the husband is 35 years old or older, the rate is even higher: 79.1 percent in 1970 and 84.8 percent in 1977. However, younger husband-wife households have also steadily increased their ownership rates, from 49.1 percent in 1970 to 54.4 percent in 1973 and 59.4 percent in 1977.

Other types of households, except female individuals, experienced declines in the rate over the seven year period, although some groups experienced both advances and set-backs during the period. Female individuals had only a slight increase, from 47.6 percent to 48.0 percent. Male individuals had the lowest rates: 33.8 percent in 1970 and 32.9 percent in 1977.

These non-husband-wife household types were the fastest growing groups; while the number of husband-wife households increased less than 8 percent, female individuals increased by 35 percent, female-headed multiperson households by 39 percent, male-headed households by 52 percent and male individuals by over 53 percent. Thus the numbers of homeowners in these groups grew at a faster rate than in husband-wife households. While these other households represented only 26 percent of all homeowners in 1977, they accounted for over 38 percent of the increase in homeowners from 1970 to 1977. Thus, although their ownership rates did not increase as a group, they still exhibited a strong drive for homeownership and were as important factor in the increase in homeownership.

Federal policies to encourage homeownership include the tax advantages provided homeowners, as detailed in Section I of Appendix A, and varying forms of support to the mortgage market, from FHLBB advances to secondary mortgage market activities, which are discussed in Apendix D and elsewhere in this Report. Specific programs to encourage homeownership include the FHA home mortgage insurance programs, the VA home loan guaranty program, and the FmHA homeownership programs. In calendar year 1978, almost 347,000 proposed and existing housing units had mortgage originations insured under the FHA home mortgage programs. The VA approved over 370,000 applications for home loan guaranty in 1978, and the FmHA assisted about 100,000 households to purchase a home in 1978.

A new program to assist households to become homeowners in a period of escalating home prices is the Graduated Payment Mortgage program under Section 245 of the National Housing Act. This program reduces monthly payments to principal and interest in the early years of the loan, then gradually increases the payments to a fixed level according to a predetermined schedule as the purchaser's income and the value of the house increase with inflation in the economy. As of December 1978, over 31,000 homes had loans insured under Section 245.

For lower income households, interest subsidies to aid in the purchase of a home are available under HUD's Section 235 homeownership assistance program, which reduces interest rates to as low as 4 percent, and FmHA's

Section 502 interest credit homeownership program, which reduces interest rates to as low as 1 percent. In 1978, about 9,000 homes were insured under Section 235, and about 61,000 interest credit loans were made under Section 502.

The single-family, detached, owner-occupied unit apparently is considered the ideal housing unit type and tenure combination. Many believe that a substantial majority of Americans live this way. In fact, the majority do, but the majority is not substantial. In 1977, only 54.7 percent of all households were homeowners occupying detached one-family homes. Another 10.1 percent were homeowners in different types of structures. About 9.4 percent were renters occupying single family detached homes, and the remainder, 25.8 percent, were renters in other types of structures.

Surprisingly, the single-family, detached, owner-occupied unit was declining until recently, even among homeowners. Table 6 shows trends from 1960 to 1977 in structure types within each tenure.

While owner-occupied units increased by 48.7 percent from 32.8 million in 1960 to almost 48.8 million in 1977, the single family detached unit share declined from 86.7 percent in 1960 to 84.0 percent in 1973, and then rose to 84.5 percent in 1977. One family attached units (row or townhouses) shares declined sharply from 4.7 percent in 1960 to 2.8 percent in 1970, and since have had a moderate increase to about 3.6 percent.

Table 6
Trends In Structure Types by Tenure
1960 to 1977
(Units in Thousands)

	1960	1970	1973	1977	1978
Owner Occupied Units					
Total	32,797	39,886	44,653	48,765*	50,283
Percent which are:					
1 family, detached	86.7%	86.2%	84.0%	84.5%	83.9%
1 family, attached	4.7	2.8	3.7	3.6	3.6
Units in 2 to 4 unit structures	5.8	5.4	4.8	4.4	4.6
Units in 5 or more unit structures	0.8	1.2	1.2	1.3	1.9
Mobile homes	2.1	4.4	6.3	6.2	6.0
Renter Occupied Units					
Total	20,227	23,560	24,684	26,515	26,884
Percent which are:					
1 family, detached	39.0%	32.8%	28.2%	26.7%	26.8%
1 family, attached	9.2	3.4	5.9	4.4	4.1
Units in 2 to 4 unit structures	24.9	26.4	26.7	27.6	27.6
Units in 5 to 9 unit structures	8.8	9.7	11.2	11.9	12.3
Units in 10 to 49 unit structures	12.0	17.4	17.2	17.7	17.6
Units in 50 or more unit structures	5.8	9.0	8.8	9.3	9.3
Mobile homes	0.4	1.4	1.9	2.5	2.4

Sources: Decennial censuses of housing, and the Annual Housing Surveys, Census and HUD

* In 1977, 1,009,000 owner occupied units, or 2.1 percent of all owner occupied units, were condominiums or cooperatives. The number and percent rose to 1,229,000 and 2.4 by November 1978.

Owner-occupied units in 2 to 4 unit structures, once considered a sound real estate investment for the owner occupant who would rent out the other units, have declined steadily from 5.8 percent in 1960 to 4.4 percent in 1977, while owner-occupied units in larger structures of 5 or more units, where the owner generally owns only the unit (or a share in a co-op giving him the right to occupy the unit), have increased from 0.8 percent to 1.3 percent in 17 years; they are still a not significant share of the total stock. Mobile homes had the greatest rise, tripling from 2.1 percent in 1960 to 6.3 percent in 1973; they are barely holding their own since, having a 6.2 percent share in 1977.

Renter occupied units increased by 31.1 percent over the 17 years, from 20.2 million to 26.5 million. Single family detached unit shares of the rental stock declined drastically throughout the period, from 39.0 percent in 1960 to 26.7 percent in 1977. Undoubtedly, much of this decline resulted from the conversion of rental units into owner-occupied units, as well as from the removal of old, poor quality single family rental units. Simultaneously, single family owner-occupied units were converted to rentals for investment purposes, but this was not enough to offset other reductions in single family rental units. Single family attached units fluctuated somewhat in their share of the renter-occupied inventory, but also declined, from 9.2 percent to 4.4 percent. Rental units in structures with 2 to 4 units increased their share, from 24.9 percent to 27.6 percent, while rental units in the larger structure size categories increased at greater rates, and have shown continuing increases since 1973. More and more, it is renters who are found in multiunit structures. An exception to the multiunit trend among renters is the mobile home, which increased its share of the occupied rental stock from 0.4 percent in 1960 to 2.5 percent in 1977, an 8-fold increase in its share.

VI. Recent Trends in Rental Housing

Concern has been expressed about the future of the rental housing inventory, given the preference for homeownership among those who can afford to buy, the conversion of rental units to condominium or other ownership forms by property owners who are squeezed between rising operating costs and the inability of the remaining lower income renter households (after higher income renters have moved to homeownership) to pay the higher rents needed, and the relatively low production levels of new rental housing due to high construction and operating costs and the prospect of inadequate rental income.

The Rental Stock, 1970 to 1977

The rental housing stock (occupied and vacant for rent units) grew 11 percent between 1970 and 1977, compared to a 22 percent increase in the owned stock. In SMSA's the increase in the rental stock was 12 percent while outside SMSA's the stock grew by 9 percent. Within SMSA's, almost all of the growth occurred outside of central cities, where the stock grew by almost 23 percent.

The proportion of renters living in single-family, detached houses declined from 33 percent in 1970 to 27 percent in 1977. The stock of this type of rental unit declined 8 percent from 1970 to 1977, partly due to losses, but also due to conversions to ownership. These conversions apparently have reduced the rental stock more than the much publicized multifamily condominium conversions.

The proportion of rental units in structures with 2-4 units increased from 26 percent in 1970 to 28 percent in 1977, while the stock of these units increased 18 percent over the period. Rental units in structures with 5-9 units increased 38 percent between 1970 and 1977, the largest increase of any structure type except mobile homes. The proportion of renters residing in this structure type rose from 10 percent in 1970 to 12 percent in 1977. Units in structures with 10 or more units increased 15 percent between 1970 and 1977, while the proportion of renters in these units increased only slightly from 26 to 27 percent. The stock of renter-occupied mobile homes more than doubled between 1970 and 1977; however, in 1977 mobile homes still accounted for only 2 percent of the renter occupied housing stock. About 63 percent of the rental mobile homes in 1977 were located outside of SMSA's.

About 16 percent of renter occupied units in 1977 were built after April of 1970, while 41 percent were built before 1940. The median year built for renter-occupied units was about 1949. The rental stock is older than the owner-occupied stock, which has a median year built of about 1955. Less than 28 percent of owner-occupied units were built before 1940, and 19 percent were built after April 1970.

The proportion of renter occupied units lacking plumbing decreased from 7.8 percent in 1970 to 4.2 percent in 1977. Over half of the rental units without complete plumbing in 1977 were located outside of SMSA's where almost 10 percent of the rental units had this deficiency.

Overcrowding, defined as over 1.00 persons per room has declined from 11 percent of renter occupied units in 1970 to 6 percent in 1977. Over the same period, units with 0.50 or less persons have increased from 45 percent of the renter-occupied stock in 1970 to 55 percent in 1977.

Rental Vacancy Rates

The gross rental vacancy rate in the nation reached a 23 year low in 1978, of 5.0 percent. This rate continued into 1979, touching 4.8 percent in the first quarter before moving upward slightly. It had moved steadily downward since 1974, and, except for 1977, was significantly lower than any annual U.S. rate since data became available in 1956. The rate in central cities, 5.6 percent, was below the rates of 6.2 to 6.8 reported for 1973 to 1976, but was above the 5.3 to 5.4 percent rates for 1969 to 1971. Similarly, the 4.8 percent rate in suburbs of SMSAs was lower than the 5.0 to 5.4 percent rates recorded from 1973 to 1976 but was higher than the 4.0 to 4.5 percent rates of 1968 to 1971. It was the rate outside SMSAs in 1978, 4.5 percent, which brought the overall rate below the 1969 to 1972 period; then the rate outside SMSAs varied from

7.1 percent in 1969 to 6.1 percent in 1972. In 1979 the vacancy rate rose outside SMSAs to about 4.9 percent, which should help compensate for low production levels there and increased household migration to these areas.

For those rentals with complete plumbing, the rental vacancy rate in 1979 of 4.6^p percent was higher than the 4.1 and 4.3 percent rates for rental units with all plumbing in the fourth quarter of 1969 and the third quarter of 1970 and was above the annual rates for 1969 and 1970. The quality of the vacant rental stock has been improving along with the occupied stock; in 1969, 80 to 81 percent of vacant rental units had all plumbing, while in 1979 the proportion was 90 to 91 percent. However, the current rental rate is at the lower end of the acceptable range. In many markets the rate has been very low, 2 percent or less, making it difficult for would-be renters to find accommodations without excessive cost and search time.

Losses, 1973 to 1976, from the 1973 Rental Inventory

Losses (demolitions and other removals including conversions to nonresidential use) played a major role in upgrading the rental inventory. The loss rate by 1976 for units lacking some or all plumbing and occupied in 1973 was 14.9 percent; for units with all plumbing the loss rate was 3.6 percent. The overall rate was 4.3 percent.

The loss rate for occupied rental units was highest outside SMSAs--5.9 percent, compared with 4.1 percent in central cities and 3.2 percent in the suburbs.

The loss rate was higher for rental units occupied by Blacks in 1973--6.9 percent, than for units occupied by Whites in 1973--3.8 percent.

Among conventionally-built rental units, the loss rate was highest for single family units--48 percent. The rate for units in structures with 2 to 4 units was 4.2 percent, for units in structures with 5 to 19 units, 2.7 percent, and for units in structures with 20 or more units, it was 3.1 percent.

The loss rate was highest for units built before 1940--6.5 percent, compared with 4.0 percent for units built from 1940 to 1949, and from 2.1 to 2.7 percent for units built in the 1950s and 1960s.

The 1973 median rent for units removed from the inventory was $98 per month, compared with $133 for all occupied rental units in 1973.

Production and Characteristics of New Multifamily Housing

New multifamily (5+ units) construction starts were at high levels during the early 1970's, accounting for 38-39 percent of total privately owned housing starts each year from 1969 to 1973 before declining to less than 18 percent of new starts in 1975. Since 1975, multifamily starts have increased gradually, reaching 23 percent of total private starts in 1978, and 24.5^p percent in 1979.

Completions of new multifamily units have followed a rate similar to starts, remaining at high levels from 1969 through 1974, both in absolute terms and as a proportion of total completions (34 to 40 percent). By 1976, however, completions had declined 66 percent to 265,800 units from the high of 779,800 in 1973. In 1978 multifamily completions totalled 382,200, about 20 percent of total completions, and in 1979, such completion amounted to 445,000^{p} units, 24^{p} percent of the total.

In 1977 and 1978, approximately 23 percent of total private housing starts were intended for rent. This represents a slight increase over the 21 percent of units intended for rent in 1976. Of the multifamily (5+ units) starts, the proportion intended for rent declined to 81 percent in 1978 from the 86-87 percent from 1975 to 1977. The decrease in units intended for rent in 1978 was offset by an increase in units intended for sale as condominiums.

The composition of multifamily completions has varied from year to year:

- Subsidized completions were at a high of 29 percent of total multifamily completions in 1971. Between 1972 and 1977, subsidized production was from 12-17 percent of multifamily completions, and in 1978 rose slightly to 19 percent.
- Condominiums comprised 23 percent of multifamily completions in 1974 and 1975, declined to 18 percent in 1976, and have held at 15 percent in 1977 and 1978.
- Furnished apartments were 9 percent of multifamily completions in 1970, and have ranged from 3-6 percent in all years since 1971.
- Unfurnished unsubsidized apartments have consistently included the largest proportion of multifamily completions, with highs in 1972 and 1973 (69 percent) and 1977 (68 percent). In all other years since 1970, unfurnished apartments have accounted for 57-63 percent of multifamily completions, with 63 percent in 1978.

Approximately half (47-52 percent) of all unfurnished apartments completed each year since 1970 have been located within SMSA's. Central cities had from 35 to 50 percent of the completions within SMSAs.

Construction and Operating Cost Trends, 1970 to 1978

All construction costs rose an average of 9 percent per year from 1970 to 1978, while the cost of constructing apartment buildings rose an average of 8 percent. The price of construction materials averaged an increase of 9.2 percent. Average union hourly wage rates in building trades rose an average of 8.2 percent. Over the same period, the consumer price index rose, on average, 6.7 percent per year, and the implicit GNP price deflator rose 6.6 percent.

The price of fuel and utilities rose 9.1 percent per year, on average, from 1970 to 1978. During the same period, the cost of maintenance and repairs rose 8.2 percent, and property taxes rose 6.0 percent, less than the rate of inflation in the economy.

Trends in Rents, Renter Incomes, and Rent/Income Ratios

The median rent of the total occupied rental stock rose from $108 per month in 1970 to $184 in 1977, an increase of over 70 percent over the period, or an average of 7.9 percent per year.

The median monthly rent of new unfurnished and unsubsidized apartments in multifamily buildings rose from $188 in 1970 to $250 in 1978, an increase of only 33 percent over the period, or 3.6 percent per year.

Only 19 percent of these apartments rented for less than $200 in 1978 compared to 35 percent in 1976.

The rent index of the CPI, for a constant quality unit, rose 49 percent from 1970 to 1978, or 5.1 percent per year.

The median income of renter households rose from $6,300 in 1970 to $8,800 in 1977, an increase of less than 40 percent, or 4.9 percent per year.

The proportion of renters paying 25 percent or more of income for rent rose from 36.5 percent in 1970 to 45.9 percent in 1977. The number of renters paying 25 percent or more of income for rent rose from 8.6 million households in 1970 to almost 12.2 million in 1977, an average increase of about 475 thousand households a year, or an annual rate of increase of almost 5 percent.

Table 7 shows the proportion of income paid for rent by income quartile for 1960, 1970, 1976 and 1977. The one-fourth of renters with the lowest income have the greatest cost burden in 1977; 74.3 percent paid more than 35 percent of income for rent, up from 71.3 percent in 1976. Among the next higher one-fourth, by income, the proportion rose to 37.8 percent in 1977; it had been only 14.9 percent back in 1960. In the third quartile, the second highest one-fourth of renters by income also are experiencing increasing cost burdens. In 1960 almost 88 percent were renting for less than 25 percent of income; this proportion fell to just over 67 percent in 1977, down from 71.4 percent in 1976. Only the highest income groups consistently escape high rent to income ratios.

TABLE 7
PROPORTION OF INCOME PAID FOR RENT, BY INCOME QUARTILE
1960, 1970, 1976 and 1977
(RENTER HOUSEHOLDS IN THOUSANDS)

	Total		Lowest Income Quartile		Second Lowest Income Quartile		Second Highest Income Quartile		Highest Income Quartile	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1960 Renters	17,493.3	100.0	4,373.3	100.0	4,373.3	100.0	4,373.3	100.0	4,373.3	100.0
Less Than 25%	11,326.8	64.7	674.4	15.4	2,549.5	58.3	3,836.8	87.7	4,226.1	97.5
25 to 34%	2,430.2	13.9	715.9	16.4	1,171.7	26.8	452.3	10.4	90.3	2.1
35% or More	3,736.3	21.4	2,983.1	68.2	652.2	14.9	84.1	1.9	16.9	0.4
1970 Renters	20,577.6	100.0	5,144.4	100.0	5,144.4	100.0	5,144.4	100.0	5,144.4	100.0
Less Than 25%	12,432.9	60.4	458.0	8.9	2,603.6	50.6	4,381.1	85.2	4,990.2	97.0
25 to 34%	2,935.6	14.3	700.0	13.6	1,468.3	28.6	635.3	12.4	132.0	2.6
35% or More	5,209.1	25.3	3,986.4	77.5	1,072.5	20.8	127.9	2.4	22.2	0.4
1976 Renters	23,982.0	100.0	5,995.5	100.0	5,995.5	100.0	5,995.5	100.0	5,995.5	100.0
Less Than 25%	12,814.0	53.4	846.8	14.1	2,081.5	34.7	4,283.6	71.4	5,602.1	93.4
25 to 34%	4,301.0	17.9	876.5	14.6	1,791.0	29.9	1,299.4	21.7	334.1	5.6
35% or More	6,867.0	28.6	4,272.2	71.3	2,123.0	35.4	412.5	6.9	59.3	1.0
1977 Renters	24,366.0	100.0	6,091.5	100.0	6,091.5	100.0	6,091.5	100.0	6,091.5	100.0
Less Than 25%	12,506.0	51.3	814.0	13.4	1,842.5	30.2	4,093.0	67.2	5,756.5	94.5
25 to 34 %	4,476.0	18.4	750.5	12.3	1,946.5	32.0	1,487.0	24.4	292.0	5.8
35% or More	7,384.0	30.3	4,527.0	74.3	2,302.5	37.8	511.5	8.4	43.0	0.7

NOTE: Incomes are for 1959, 1969, and the 12 months preceding November 1, 1976 and November 1, 1977.

SOURCES: 1960 and 1970 Decennial Censuses of Housing U.S. Department of Commerce, Bureau of the Census, and 1976 and 1977 Annual Housing Surveys, U.S. Department of Commerce, Bureau of the Census and U.S. Department of Housing and Urban Development, Office of Policy Development and Research.

Much of the problem in the rental market is due to weak or ineffective demand due to low incomes and already high rent-income ratios. The demand for homeownership is strong, and those who can afford to buy do so, further weakening the demand for rental housing.

Demand for owned and occupied housing is driven not only by a cultural preference for homeownership, involving privacy, independence and social status, but also by the tax advantage and the investment opportunities available to home purchasers. As long as tax advantages remain, and consumers do not expect that all inflation will be squeezed out of the economy, the strong preference for homeownership will remain.

Demographics also favor homeownership. The post-WWII baby "boom" peaked in 1957 to 1961, when between 4.2 and 4.3 million babies were born each year. The number of live births dropped to about 3.5 to 3.7 million per year in the mid to late 1960's, to 3.1 to 3.2 million in the mid 70s, then rose slightly to over 3.3 million in 1977 and 1978. Age 30 is about the mid-point of the ages at which people generally buy their first house. Thus demand for homeownership should increase to the late 1980s and early 1990s, and then fall off after that peak as fewer numbers of households pass age 30.

The demand for rental housing is often viewed as a residual of the demand for owned housing. However, about 10 percent of all households with incomes above $35,000 are renters; presumably they could afford to buy but prefer the mobility, security, lack of responsibility or locational attributes associated with their rental units, and/or have alternative investment opportunities superior to owning housing, and so choose rentership. This might be assumed to be "core" demand for rental housing. It does not seem sufficient in many markets, however, to cause rents to rise enough to make new construction profitable. In some markets the presence of rent controls also tends to discourage investment in rental housing.

Several Federal policies have supported the rental market. Tax benefits to investors in rental projects are discussed in Section I of Appendix A. Federal subsidy programs to build, rehabilitate, or maintain rental housing for lower income households are detailed in Section III and IV of Appendix A. Mortgage market support for rental housing is provided by programs of the Government National Mortgage Association.

VII. Housing Needs, and Physically Inadequate Housing in the United States

Basic housing needs in the United States, to replace housing stock losses, assure a reasonable vacancy rate for mobility purposes, and house the net increase in households each year, are currently estimated at between 2.0 and 2.4 million units per year. These needs can be satisfied by new conventional construction, by mobile home production and placement, or by additions to the inventory from the various non-new-construction additions which have proven useful in meeting housing needs in the past, e.g., rehabilitating and subdividing large, old units into two or more smaller units, or conversion of nonresidential structures to residential use. The total needs are made up of 1.6 to 1.8 million net household formations, 0.2 to 0.4 million for replacement of losses, and about 0.2 million for adjustments of vacancies. Over the long run, these basic housing needs have been met by normal housing market forces, with the Federal role required to support the mortgage market, maintain a secondary mortgage market, develop improved mortgage instruments and provide generalized subsidies to various housing sectors to help them operate more successfully and further national housing objectives.

Meeting basic housing needs alone will not achieve the national housing goal of a decent home in a suitable living environment for every American family. That goal can be achieved only by addressing social housing needs, which are those which cannot be met by the market place and which require more direct public intervention in order to improve housing conditions. These needs are estimated from the number of households, usually lower income households, living in physically inadequate housing. Crowded living conditions and excessive cost burdens may also be considered in assessing these needs. Depending upon the rate at which such conditions are to be eliminated, these needs could add 0.3 million units per year to the basic needs. This section of the report reviews physical housing conditions found by the Annual Housing Survey, to assess the extent of social housing needs.

Lack of some or all plumbing facilities has long been used to measure housing quality. This has been a declining problem in the general housing stock, so that by Autumn 1977 only 1.8 million occupied units, or 2.4 percent of all occupied units, had the problem. The incidence varied widely by location and tenure, however. Table 8 shows the location of all occupied and vacant housing units, and of owner occupied and renter occupied units, in the United States, by whether the units have or do not have all plumbing facilities. The table also shows the proportion within each group which lacks some or all plumbing (percent without all plumbing) and the proportion of units without all plumbing which are located in each type of location (share without all plumbing). The locations shown are "urban", defined generally as places of 2,500 population or more, and "rural", defined as places of less than 2,500 population and open country, within standard metropolitan statistical areas (in SMSA's) and outside those areas (out of SMSA's).

Table 8 shows that, for both occupied and vacant units, over 2.5 million or about 3.2 percent of the total stock of 80.7 million year round units lacked some or all plumbing. The lowest incidence, 1.4 percent, was in urban areas inside SMSA's, while the highest incidence, almost 8 percent, was in rural areas outside SMSA's. The latter location had half of the units lacking some or all plumbing, while all rural areas, both in and out of SMSAs, had 60 percent of such units. Urban areas inside SMSAs - generally, central cities and their suburbs - had only one-fourth of the units with these plumbing deficiencies, although they had over 58 percent of all housing units.

Table 8
Location of Units Lacking Some or All Plumbing in the United States, 1977

		URBAN			RURAL		
	Total	Total	In SMSAs	Out of SMSAs	Total	In SMSAs	Out of SMSAs
Total occupied & vacant units	80,716	57,145	46,981	10,164	23,571	7,571	16,000
with all plumbing	78,174	56,141	46,333	9,808	22,033	7,303	14,730
without all plumbing	2,542	1,004	649	355	1,538	268	1,270
% without all plumbing	3.2%	1.8%	1.4%	3.5%	6.5%	3.5%	7.9%
share without all plumbing	100.0%	39.5%	25.5%	14.0%	60.5%	10.5%	50.0%
Owners	48,765	31,890	25,727	6,163	16,875	5,559	11,316
with all plumbing	48,080	31,762	25,662	6,100	16,318	5,457	10,861
without all plumbing	685	128	65	63	558	103	455
% without all plumbing	1.4%	0.4%	0.2%	1.0%	3.3%	1.8%	4.0%
Share without all plumbing	100.0%	18.7%	9.5%	9.2%	81.5%	15.0%	66.4%
Renters	26,515	21,809	18,532	3,277	4,705	1,496	3,210
with all plumbing	25,395	21,216	18,139	3,077	4,179	1,409	2,770
without all plumbing	1,120	593	393	200	527	87	440
% without all plumbing	4.2%	2.7%	2.1%	6.1%	11.2%	5.8%	13.7%
Share without all plumbing	100.0%	53.0%	35.1%	17.9%	47.0%	7.8%	39.3%

Source: Annual Housing Survey, 1977 National, Part E.

The lowest incidence of plumbing lack in 1977 was among owners in urban areas inside SMSAs; only one-fourth of one percent had this problem, while four percent of owners in rural areas outside SMSAs had the deficiency.

The problem was more severe among renters, regardless of location. About 2 percent of renter households in urban areas inside SMSAs, about 6 percent in rural areas inside SMSAs and in urban areas outside SMSAs, and almost 14 percent - the highest incidence shown here - of renter households in rural areas outside SMSAs, had this housing problem. Among some groups the incidence was even higher. For example, about 50 percent of Black renter households living in rural areas of the South lack some or all plumbing.

About two-thirds of the owner occupied units lacking plumbing are in rural areas outside SMSA's, followed by 15 percent in rural areas inside SMSA's. Among renter occupied units, 39 percent are in rural areas outside SMSAs, and 35 percent are in urban areas inside SMSA's. Rural owners and renters outside SMSA's account for almost half of all occupied units lacking some or all plumbing. Urban owners and renters inside SMSA's account for one-fourth, and urban households out of SMSA's and rural households inside SMSA's account for the remaining one-fourth. Access to adequate water and sewerage facilities in rural areas, and to a lesser extent in urban areas outside SMSA's, clearly is still a problem for many households.

A more complete set of housing deficiencies has been used in analyses of 1976 Annual Housing Survey results by HUD, and by Dr. Anthony Yezer of George Washington University for the HUD publication series entitled "How Well Are We Housed?" Eight categories of physical deficiencies - lacking or sharing plumbing, lacking or sharing kitchen facilities, maintenance problems in the unit, or in public halls of multifamily buildings, lack of adequate heating equipment, electrical problems, lack of adequate sewage facilities, and proper access to a flush toilet - are used to obtain the results in Table 9, showing housing deficiencies for selected subgroups in 1976. The table shows the numbers of units without and with flaws, the proportion having the flaws shown or any flaw, and the number of units with one or with multiple flaws. The eight categories of flaws or deficiencies are shown for all occupied housing units in the U.S., while the two or three deficiencies occuring most frequently are shown for each of six population sub-groups: Blacks, Hispanics, large households, young households with head under age 30, and elderly households with head 65 years or more.

Among all households in 1976, the maintenance problems (two or more of the following: leaking roof, holes in floors, cracks or holes in ceilings or walls, one square foot or more of broken plaster or peeling paint in walls or ceilings) were most prevalent; 4.1 percent of all units

Table 9

Housing Deficiencies in the United States
For Selected Sub-Groups, 1976
(Occupied Units in Thousands)

Type of flaw	Unit without flaws	Units with flaws	% of all units with flaws	Inadequate units by numbers of flaws				
				1 flaw	2 flaws	3 flaws	4 flaws	5 + flaws
Housing Units Occupied by all Households	66,906	7,174	9.7%	5,283	1,085	540	239	26
Plumbing	72,134	1,946	2.6%	522	656	504	238	26
Kitchen	72,738	1,342	1.8%	311	356	421	228	26
Maintenance	71,034	3,046	4.1%	2,243	456	137	185	26
Public Hall	73,777	303	0.4%	199	84	14	60	0
Heating	72,924	1,156	1.6%	864	149	62	64	19
Electrical	74,012	68	0.1%	19	26	13	2	8
Sewage	73,135	945	1.3%	0	242	445	233	26
Toilet Access	72,728	1,352	1.8%	1,126	201	23	2	0
Black Households	6,008	1,632	21.4%	1,026	268	215	114	8
Plumbing	7,026	614	8.0%	132	153	208	114	8
Kitchen	7,198	442	5.8%	40	89	193	112	8
Maintenance	6,791	849	11.1%	538	140	51	111	8
Hispanic Households	2,689	609	18.5%	436	122	36	14	1
Maintenance	3,044	254	7.7%	156	69	22	7	1
Heating	3,134	164	5.0%	110	31	15	8	1
Toilet Access	3,150	148	4.5%	100	38	10	0	0

	Unit without flaws	Units with flaws	% of all units with flaws	Inadequate units by numbers of flaws				
				1 flaw	2 flaws	3 flaws	4 flaw	5 + flaws
Large (6+) Households	4,386	892	16.9%	628	142	67	52	4
Maintenance	4,867	412	7.8%	258	85	18	47	4
Toilet Access	4,969	310	5.9%	248	56	7	0	0
Female-Headed Households	15,705	2,149	12.0%	1,605	322	150	68	4
Plumbing	17,251	603	3.4%	204	182	146	68	4
Maintenance	16,766	1,088	6.1%	831	158	34	61	4
Young Households (less than 30 years)	12,928	1,850	12.5%	1,473	251	91	31	4
Maintenance	13,880	897	6.1%	704	136	33	20	4
Toilet Access	14,397	380	2.6%	313	57	9	0	0
Elderly Households (65+ years)	13,494	1,332	9.0%	801	244	192	88	7
Plumbing	14,146	680	4.6%	181	214	189	88	7
Maintenance	14,336	490	3.3%	325	59	30	69	7

Source: Anthony Yezer, Housing Adequacy and Affordability, Annual Housing Survey Studies Number 7, Forthcoming (1980) had these problems. This was followed by 2.6 percent lacking or sharing plumbing, and 1.8 percent lacking or sharing complete kitchen facilities, and 1.8 percent in housing units with children under 18 and having access to the sole flush toilet through a bedroom used for sleeping. Of the 7,174,000 occupied units having flaws, 5,283,000 or 73.6 percent had only one category of flaws.

Among Black households, maintenance problems were also the most prevalent, but 11.1 percent of households were affected. Plumbing deficiencies followed, for 8 percent of Black households, and incomplete or shared kitchen facilities were problems for 5.8 percent of these households. About 21.4 percent, or 1.6 million, of all Black households suffered from one or more of these deficiencies.

About 7.7 percent of Hispanic households had the maintenance problems. Heating equipment deficiencies and toilet access were problems for 5.0 percent and 4.0 percent of such households. Overall 18.5 percent of Hispanic households lived in housing units with one or more of the specified deficiencies.

About 16.9 percent of large households lived in units with one or more of the physical deficiencies, with maintenance and toilet access being most common. Maintenance and plumbing occured most often among female-headed households, and 12 percent of female-headed households had one or more of the physical deficiency categories in their housing units. The incidence of deficiencies in occupied housing units was 12.5 percent for households headed by persons under age 30, and 9 percent for elderly households.

The same set of physical deficiencies is used in Table 10, which shows the incidence of the deficiencies by the same types of location used for Table 8 above, except that "Urban, In SMSAs" is broken out into "Large Central Cities" (above 250,000) and "Other Urban." The data are shown for all households and for lower income renters and lower income owners. "Lower income" means a household having an income 80 percent or less of median family income, after adjustments for household size and location.

About 5,116,000 lower income households, or 18.5 percent of the 27,717,000 lower income households in the nation, have one or more of the physical housing deficiencies specified here. Among lower income renters, 3,482,000 or 21.9 percent of all such renters have housing units with deficiencies, and among lower income owners, 9.7 percent or 1,634,000 have these housing problems.

As was true when using the plumbing measure alone, the highest incidence of physical housing deficiencies is found in rural, non-metropolitan housing. About 14.2 percent of all these households, or 2,022,000, had units with one or more deficiencies. The next highest incidence was in large central cities, where 12.3 percent of all households, or 1,758,000, had these problems. Next were the 919,000 households in urban places outside metropolitan areas, an incidence of almost 10 percent, and the 544,000 in rural areas inside SMSAs, with a rate of 8.3 percent.

Table 10
Housing Deficiencies in the United States
By Type of Location, 1976
(Occupied Units in Thousands)

	Units without flaws	Units with flaws	% of all units with flaw	1 flaw	2 flaws	3 flaws	4 flaws	5 + flaws
Total U.S								
Lower Income Renters	12,445	3,482	21.9%	2,378	664	281	144	15
Lower Income Owners	15,272	1.634	9.7%	1,085	268	202	73	7
Total, All Incomes	66,906	7,174	9.7%	5,283	1,085	540	239	26
Rural, Out of SMSA								
Lower Income Renters	1,469	759	34.0%	318	145	178	108	10
Lower Income Owners	4,475	814	15.4%	429	164	162	54	5
Total, All Incomes	12,206	2,022	14.2%	1,104	344	380	177	17
Urban, Out of SMSAs								
Lower Income Renters	1,752	531	23.3%	366	119	30	14	2
Lower Income Owners	2,258	176	7.2%	144	21	6	5	0
Total, All Incomes	8,400	919	9.9%	688	171	39	19	2

	Units without flaws	Units with flaws	% of all units with flaw	1 flaw	2 flaws	3 flaws	4 flaws	5 + flaw
Rural, In SMSAs								
Lower Income Renters	578	166	22.3%	93	29	27	15	3
Lower Income Owners	1,434	181	11.2%	106	29	34	12	1
Total, all Incomes	5,995	544	8.3%	358	77	70	33	6
Large Central Cities In SMSAs								
Lower Income Renters	3,858	1,104	22.2%	873	197	29	6	0
Lower Income Owners	2,075	153	6.8%	141	11	0	0	0
Total, All Incomes	12,519	1,758	12.3%	1,478	242	32	6	0
Other Urban, In SMSAs								
Lower Income Renters	4,787	922	16.2%	730	173	18	1	0
Lower Income Owners	5,030	310	5.2%	265	42	0	2	1
Total, All Incomes	27,787	1,931	6.5%	1,655	251	20	4	1

Source: Annual Housing Survey, 1976 National Data Tapes, Office of Economic Affairs, PD&R, HUD.

The lowest incidence, 6.5 percent, but involving a large number of households, 1,931,000, was in the smaller urban places inside SMSA's.

Lower income renters suffered from these housing deficiencies at a much higher rate than all households, and than lower income owners. In the total U.S., 21.9 percent had such deficiencies. The rate was lowest, 16.2 percent, in smaller urban places inside SMSA's. It was around 22 or 23 percent in large central cities, in rural metropolitan areas, and in urban non-metropolitan areas. The rate was highest among rural, non-metropolitan renters, 34 percent of whom had physically deficient housing units. In terms of numbers, over 2 million lower income renters with these physical housing problems lived in urban areas inside SMSA's, while 1,456,000 lived in the other areas.

Among lower income owners, the highest incidence of such problems, the greatest number, 814,000, and the largest share, 49.8 percent, was in rural, non-metropolitan areas, where the rate was 15.4 percent, compared with 9.7 percent for the nation as a whole, 11.2 percent in rural metropolitan areas, and 5 to 7 percent in other areas. In rural areas, for both owners and renters, it is plumbing, kitchen and sewage which lead the list: these are all related to the problem of access to adequate water and sewage facilities, and probably are the most costly conditions to correct in comparison with the other deficiencies analyzed here.

Table 11 shows what proportion of various groups of households could afford adequate housing, that is, housing without the physical deficiencies discussed above, and with a sufficient number of rooms so that there are no more than one person per room. This measure, developed by Anthony Yezer in his analyses for HUD, estimates the actual cost of adequate housing of various sizes in the market and then computes how many households could afford adequate uncrowded housing by devoting various proportions of household income to the estimated housing costs.

The Table shows that about 80 percent of all U.S. households, but 73 percent of renters and 84 percent of owners, could afford adequate housing in the market with less than 25 percent of their income. If they used up to 35 percent of income for housing, 87.5 percent of all households - 84 percent of renters and 89 percent of owners - could afford adequate housing. The proportion is about 93 percent if up to half of income were to be used for housing.

Blacks do not fare nearly as well, due to their lower incomes. At less than 25 percent of income, only 63 percent (57 percent of Black renters, 71 percent of Black owners) could afford adequate, uncrowded housing. Even using close to half of their income would not be sufficient for 12 to 13 percent of Black households.

Hispanics also have more problems in the housing market, but are better off than Blacks. Almost 71 percent can afford adequate housing with less than 25 percent of income, compared with 80 percent of all

Table 11
Proportion of Households Able to Afford Adequate, Uncrowded Housing With Various Shares of Income
1976

	Ratio of Adequate Housing Cost to Income		
	Under 25%	Under 35%	Under 50%
Type of Household-Percent Able to Afford Adequate Housing:			
All U.S. Households	80.3%	87.5%	92.9%
All U.S. Renters	72.8	84.0	92.5
All U.S. Owners	84.3	89.4	93.0
Black Households	63.0	76.2	87.3
Black Renters	56.8	72.1	86.6
Black Owners	71.1	81.5	88.2
Hispanic Households	70.7	82.6	90.7
Large Households	80.9	90.2	94.9
Female-Headed Households	53.0	67.7	81.2
Young Households	83.3	89.4	93.8
Elderly Households	58.7	73.1	84.8
Rural Households	74.0	82.4	88.9

Source: "Housing Adequacy and Affordability in the United States", Anthony Yezer.

households. Young households (head under age 30) are somewhat better off than all households. Rural households are worse off than all households. The groups with the greatest affordability problems, again because of very low incomes, are female-headed households (only 53 percent could afford adequate housing with less than 25 percent of income) and elderly households (less than 59 percent below the 25 percent housing cost to income ratio). However, as noted in Table 8 above, the elderly are about as well housed, with respect to lack of physical deficiencies, as all households. If they are owners, they do not have to go out in the market and pay current market prices for housing. If they are renters, however, they either face high rent-income ratios or make do with poorer quality housing. Female-headed households are not as well housed as all households, and face high cost to income ratios if they are to obtain adequate housing.

In summary, about 14.6 million households in the United States in 1976, including 7.1 million renters and 7.5 million owners, would have had to spend 25 percent or more of their income in order to obtain adequate housing. Almost 2 million renters and over 3.3 million owners would have had to spend 50 percent or more of income for adequate, uncrowded housing. As noted above, 5.1 million lower income households, 3.5 million renters and 1.6 million owners, were living in physically inadequate housing in 1976. Another 1.6 million lower income households were in physically adequate housing but were crowded (more than one person per room) while

5.8 million lower income households were not crowded or in physically inadequate housing, but were paying more than 35 percent of income for housing. Thus, the "social" housing needs in the United States in 1976 ranged from 5.1 million upward to 12.5 million, depending on definitions. If these numbers were to remain static, a 20 year program to eliminate these problems would involve subsidizing from 250,000 to about 600,000 additional new, rehabilitated and existing units per year.

VIII. Manpower, Materials and Land Requirements

Residential and Other Construction Manpower

In 1978, demand for on-site manpower in the construction industry rose to 2,246,800 full-time equivalent job requirements, 46,000 above the 1977 level. In the residential sector, year-long job requirements (not the same as numbers of employees) declined 1 percent, from 864,000 in 1977 to 856,200 in 1978. The nonresidential construction sector rose four percent, from 1,337,000 to 1,390,600 full-time equivalent job requirements. As a result, the residential sector decreased slightly its share of construction job requirements from 39 percent in 1977 to 38 percent in 1978. Although employment was up during 1978, the unemployment rate in the construction industry continued high, ranging from a low of 9.2 percent in May to a high of 11.5 percent in October.

In 1979 full-time equivalent job requirements in residential construction declined almost 17 percent to 712,700. In non-residential construction, there was a slight increase to 1,414,000, so that overall there was be a decrease in labor requirements of five percent in the construction industry. The construction industry unemployment rate in December 1979 was 10.3 percent.

In 1980, residential construction job requirements are expected to fall further to between 534,400 and 612,000, a drop of 14 to 25 percent. Non-residential construction job requirements may decline from 7 to 10 percent, so that the construction industry as a whole will experience a decrease or 9 to 15 percent. (See Appendix C for details.)

Construction Materials

The demand for building materials increased in 1978 reflecting a carry over of demand from 1977 starts, the spreading of the housing upsurge to additional areas of the country, and a significant recovery in nonresidential construction. The peak demand for building products in 1978 caused supplies of some materials to be tight, notably cement, brick and, in some areas, gypsum board.

Demand for building materials in 1979 was only slightly lower than in 1978, as nonresidential construction levels continued to rise, and new housing construction and mobile home shipments remained stronger than anticipated. With capacity levels up and imports increased, shortage situations in 1979 were much less serious and widespread than in the previous two years.

In 1980, the demand for building materials will decline, as total construction activity drops about 10 percent. Most of the decline will come in the residential sector, including mobile home production. Nonresidential construction declines will be more modest, and non-residential buildings should have a 1980 performance similar to 1979, while industrial construction should rise significantly. Materials demand from residential alterations and repairs should rise above 1979 levels.

Construction material prices continued rising at a significant rate in 1978, with gypsum products (wallboard, etc.) the major contributors to the increase in the construction materials price index. Other significant price increases occurred for millwork, building paper and board, prepared asphalt roofing, and softwood lumber - all rose 16 percent or more in price. The All Construction Materials Producer Price index slowed in 1979 to an increase of 10.1 percent, compared with 11.4 percent in 1978. In 1979, the increase was less than the increase in the All Commodities Producer Price index for the first time in four years. (See Appendix C for details.)

Residential Land Resources

Land costs may be rising faster than most other components of the cost of housing construction, so that developed land represents an increasing share of total housing development costs. This may be due, in part, to an increase in the size of the lots on which houses are built, but most of the cause is an inflation in land prices. Rising land prices reflect increased demand for land, and sometimes a shortage of buildable land in areas where land use controls may restrict the supply of land and thus raise prices. Regulations and fees also increase the cost of developed land.

IX. Housing Finance in 1978

A. Supply of Mortgage Funds

Residential mortgage lending reached new heights in 1978, with the volume of long-term loans originated totaling $199.9 billion, compared to $197.7 billion in 1977 and $123.3 billion in 1976. Loan originations for new 1-4 family homes advanced from $46.5 billion in 1977 to $57.5 billion in 1978, while loans for existing homes grew from $115.6 billion to $125.7 billion. Thus, activity in the mortgage market reflected the relatively heavy volume of existing home purchases, which rose from 3,532,000 in 1977 to 3,905,000 in 1978.

Mortgage lenders originated (or closed) an estimated 3,361,000 long-term loans for existing 1-4 family homes in 1978, or about 86 percent of such home sales. They also originated 1,253,000 loans for newly built homes, or approximately 84.4 percent of the 1,485,000 1-4 family home construction completions (including condominium units constructed as multifamily housing, but later financed as single family units).

As detailed in Table 12, most of the important mortgage lender groups stepped up their lending for both new and existing homes in 1978. Aided greatly by the special six month certificate of deposit program, commercial

Table 12
Total Originations of 1-4 Family Long-Term Mortgage Loans by Identifiable Lender Groups
(dollars in billions)

	Calendar Years a/				
	1976	1977	1978	1979	1980
New 1-4 Family Homes					
Savings & Loan Assns.	$17.7	$24.5	$27.7	$27.6	$25.0
Mutual Savings Banks	1.3	1.6	1.7	1.5	1.2
Commercial Banks	6.2	9.4	10.9	11.3	9.8
Life Insurance Companies	.1	.1	.2	.8	.6
Non-Insured Pension Funds	*	*	.2	.2	.1
State & Local Retirement Funds	*	*	*	*	*
State & Local Credit Agencies	.2	.1	.3	.1	.3
Mortgage Companies	5.0	8.7	14.0	15.9	15.7
Federal Credit Agencies	1.5	1.8	2.3	2.0	1.9
Credit Unions	.2	.2	.2	.3	.2
Mortgage Investment Trusts	.1	.1	*	*	*
Total b/	$32.2	$46.5	$57.5	$59.7	$54.8
Previously Occupied 1-4 Family Homes					
Savings & Loan Assns.	$44.2	$61.8	$62.2	$54.9	$50.5
Mutual Savings Banks	5.2	7.0	7.8	7.3	6.1
Commercial Banks	17.8	26.8	30.5	28.2	24.8
Life Insurance Companies	.3	.3	.6	1.0	1.2
Non-Insured Pension Funds	*	*	*	0	*
State & Local Retirement Funds	.1	.1	.1	.1	*
State & Local Credit Agencies	.8	.8	1.0	1.8	2.1
Mortgage Companies	10.7	17.0	20.4	28.5	28.9
Federal Credit Agencies	1.2	1.3	2.5	2.3	2.5
Credit Unions	.5	.5	.5	.4	.2
Mortgage Investment Trusts	*	*	.1	*	*
Total b/	$80.8	$115.6	$125.7	$124.6	$116.3

* Under $50,000.

a/ 1976, 1977 and 1978 actual, 1979 estimated from incomplete data, 1980 projected.

b/ Totals may not equal sum of parts due to rounding.

banks, mutual savings banks and savings and loan associations accounted for the bulk of the record lending volume. S&L's closed $27.7 billion of loans for new 1-4 family loans, or 48 percent of the total; they also made $62.2 billion of loans for existing homes, or 49 percent of the total originated. With business loan demand lagging below expectations, commercial banks put more investible funds into mortgages. They also stepped up participation in the secondary markets, apparently taking away some business from mortgage companies. Commercial banks closed $30.5 billion of loans for existing homes and $10.9 billion of loans for new homes (24 and 19 percent of the respective totals). Mortgage companies originated $14.0 billion of loans for new homes (24 percent of the total), and $20.4 billion of loans on existing homes (16 percent of the total). Mutual savings banks made $1.7 billion of loans for new homes and $7.8 billion of loans for existing homes, while Federal credit agencies closed $2.3 billion of loans for new homes and $2.5 billion of loans for existng homes.

Long-term mortgage loans closed for new multifamily properties were up in 1978, reflecting the upturn in apartment house construction. As shown in Table 13, loans closed for new multifamily properties totaled $6.7 billion in 1978, up from $5.5 billion in 1977. Lending for existing multifamily properties did not fare as well, with the 1978 volume aggregating $9.9 billion compared to $10.1 billion in 1977. However, the volume was still well above the levels of 1976 and 1975 at $7.8 billion and $4.8 billion respectively. Most of the increase in lending for new multifamily properties was due to increases in originations by Federal credit agencies (from $.9 billion to $1.6 billion), and

Table 13
Total Originations of Mortgage Loans on Multifamily Properties by Identifiable Lender Groups
(dollars in billions)

	Calendar Years [a]				
	1976	1977	1978	1979	1980
New Multifamily Units					
Savings & Loan Assns.	$1.2	$1.7	$1.9	$1.8	$1.6
Mutual Savings Banks	.4	.2	.3	.2	.2
Commercial Banks	.6	.4	.4	.8	.7
Life Insurance Companies	.4	.5	.9	.9	.8
Non-Insured Pension Funds	0	0	*	*	*
Mortgage Companies	.5	1.5	1.1	1.1	.5
State & Local Retirement Funds	*	*	0	.1	.1
State & Local Credit Agencies	.2	.3	.5	.5	.6
Federal Credit Agencies	1.0	.9	1.6	2.4	1.5
Mortgage Investment Trusts	.2	*	*	*	*
Total b/	$4.5	$5.5	$6.7	$7.8	$6.0
Previously Occupied Multifamily Units					
Savings & Loan Assns.	$3.9	$5.2	$4.3	$3.1	$2.0
Mutual Savings Banks	1.0	1.3	1.2	.7	.5
Commercial Banks	1.4	1.4	1.7	1.2	1.0
Life Insurance Companies	.3	.5	.9	.7	.8
Non-Insured Pension Funds	.1	*	*	*	*
Mortgage Companies	.1	.5	.8	1.0	.8
State & Local Retirement Funds	.1	.1	.4	.3	.2
State & Local Credit Agencies	.7	.9	.4	.1	.1
Federal Credit Agencies	.1	.1	.1	.2	.1
Mortgage Investment Trusts	.1	.1	.1	.1	*
Total b/	$7.8	$10.1	$9.9	$7.4	$5.5

* Under $50,000.

a/ 1976, 1977 and 1978 actual, 1979 estimated from incomplete data, 1980 projected

b/ Totals may not equal sum of parts due to rounding.

originations by savings and loan associations (from $1.7 billion to $1.9 billion). The major reason for the drop in the volume of existing property mortgage originations was the increase in conversions of rental properties into condominiums. Savings and loan associations provided $4.3 billion in loans and mutual savings banks and life insurance companies provided $1.2 billion and $.9 billion respectively. Commercial banks increased lending for such properties from $1.4 billion in 1977 to $1.7 billion in 1978. Savings and loan associations, despite their decline in existing property activity, accounted for 43 percent of all loans made in 1978 for apartment houses and 28 percent for new apartment houses. Federal credit agencies made 24 percent of the loans for new apartment houses.

Secondary market transactions for loans on 1-4 family homes also surged in 1978, increasing to $63.9 billion from $55.9 billion in 1977. Federally-supported mortgage pools (financed by mortgage backed securities guaranteed by the Government National Mortgage Association, Federal Home Loan Mortgage Corporation, and the Farmers Home Administration) accounted for $23.2 billion of home loan purchases, nearly the same as in 1977, or 36 percent of the total transacted. In addition, conventional mortgage pools insured by private mortgage insurers, which first began in 1977, accounted for $1.1 billion of home loan purchases. Federal credit agencies (principally the Federal National Mortgage Association, GNMA AND FHLMC) were the second most important source of secondary market credit for home mortgages, purchasing $18.8 billion (up from $9.3 billion in 1977) or 29 percent of the total. Savings and loans associations reduced their home loan purchases from $13.2 billion in 1977 to $10.3 billion (16 percent of the total).

The high level of starts of single family housing units in 1978 was accompanied by a 17 percent rise in construction loans for 1-4 family homes -- from $33.2 billion in 1977 to $38.8 billion in 1978. Savings and loan associations stepped up their home construction lending from $18.2 billion to $20.1 billion (52 percent of the total), while home construction loans by commercial banks increased from $11.9 billion to $13.9 billion (36 percent of the total). Home construction loans by mortgage companies advanced from $1.8 billion to $3.4 billion.

Construction loan extensions for multifamily properties, which fell from $10.7 billion in 1974 to $5.4 billion in 1975, turned up in 1978 to $10.6 billion. Most of the increase is accounted for by originations by commercial banks (from $3.4 billion to $5.4 billion) and mutual savings banks (from $.4 billion to $.6 billion), and mortgage companies (from $.7 billion to $1.2 billion). Savings and loan associations made $2.4 billion of such loans.

B. Mortgage Interest Rates

In view of the enormous demand for mortgage funds in a climate of increasing monetary restraint, mortgage interest rates on single family homes had only one way to go - up. Effective conventional interest rates on loans for the purchase of newly built homes (FHLBB series) rose from 9.09 percent in December 1977 to 10.02 percent in December 1978. Similarly, effective conventional rates on loans for the purchase of previously occupied homes rose 96 basis points to 10.08 percent.

Interest rates on FHA insured and VA guaranteed home loans generally move with the yields established in the secondary market for these loans. Based on HUD's secondary FHA market survey, effective rates rose steadily from 8.91 percent in December 1977, to 9.92 percent in July. The yields declined during August and September to 9.78 percent in response to temporarily improved bond market conditions. Yields rose once more in October and continued to rise through the end of the year, reaching 9.99 percent in December.

According to a weekly survey conducted by the Federal Home Loan Mortgage corporation, interest rates for conventional multifamily loans rose 128 basis points from 9.60 percent in December 1977 to 10.78 percent in late December 1978, directly reflecting the tightness of credit in that sector of the mortgage market.

The rise in effective mortgage rates generally paced increases in yields on marketable securities. During 1978, effective yields on new and existing conventional mortgages rose 93 and 96 basis points, respectively. In comparison, the yields on Treasury bonds (20 year constant maturity) rose by 100 basis points (from 7.99 percent to 8.99 percent); the yield on corporate AA rated bonds increased 98 basis points (from 8.49 percent to 9.47 percent); and the yield on tax-exempt municipal bonds (Bond Buyer Series) rose by 95 basis points (from 5.66 percent to 6.61 percent).

The consistent sizeable spread between effective mortgage rates and other marketable security yields, together with the improved liquidity of secondary markets have been responsible for the active role of commercial banks and mutual savings banks, and the increased activity by life insurance companies. The record high mortgage rates in late 1978 were due to a sharp tightening in monetary policy during the fourth quarter. Expectations about housing prices as an inflationary hedge overcame consumer concerns about high rates. With home price increases averaging more than 14 percent through 1978, interest rates of up to 10 percent failed to deter the strong, underlying demand arising from demographic trends. The record yields, in turn, enabled lenders to compete for loanable funds to meet the record demands.

During 1978 the Secretary of HUD and the Administrator of the Veteran's Administration increased the maximum interest rate on FHA insured and VA guaranteed home loans on three occasions. On February 28 the ceiling was raised from 8.5 percent to 8.75 percent. The increase was necessary to lower the points at closing which equalized the effective rate with secondary market rates. The rate ceiling for the FHA insured multifamily mortgage programs had been set at 9 percent on January 5, 1976, and remained unchanged. In response to rapidly rising mortgage market yields, which again necessitated unusually high discount points to equalize the effective yields, the ceiling on 1-4 family mortgages was raised to 9.0 percent on May 23. Finally, on June 29 the maximum ceiling rate on 1-4 family homes was raised to 9.5 percent, the highest maximum rate in FHA history at that time. The maximum rate on multifamily loans was also raised to 9.5 percent on June 29, 1978.

Housing Finance in 1979

A. Supply of Mortgage Funds

Long-term residential mortgage financing nearly equaled the record volumes originated in 1978 with a total of $199.8 billion, just $100 million below 1978's level. Loan originations on 1-4 family homes in 1979 actually surpassed 1978's volume, totaling $184.3 billion compared to $183.3 billion in 1978. All of the increase is attributed to originations of loans on new 1-4 family homes which increased from $57.5 billion to $59.7 billion. Origination on existing homes dropped slightly from $125.7 billion to $124.6 billion.

Mortgage lenders closed an estimated 2,838,000 long-term loans for existing 1-4 family houses in 1979, or about 76.1 percent of such home sales. The remaining purchases of existing homes were either purchased with cash, purchased by assuming the old mortgage, or financed in full by seller. Mortgage lenders also originated 1,120,000 loans for newly built homes, or approximately 79 percent of the 1,423,000, 1-4 family home construction completions.

As detailed in Table 12, most of the more traditional mortgage investors reduced their volume of residential mortgage origination with the exception of life insurance companies, mortgage companies, and state and local credit agencies. Following the restrictions placed on thrift-issued money market certificates in March 1979 which significantly reduced the competitive edge enjoyed by thrifts, net savings inflows slowed appreciably at S&L's while mutual savings banks suffered record deposit outflows. Consequently, S&L's and MSB's reduced their volumes of long-term mortgage lending. Nevertheless, S&L's still contributed 45 percent of 1-4 family home loan originations and 31 percent of long-term mortgage loans on multifamily properties. Mutual savings banks' share was 5 percent and 6 percent respectively. While commercial banks benefited greatly from the change in certificate regulation, then reduced their volume of residential mortgage originations in favor of alternative shorter-term investments. Commercial banks supplied 21 percent of long-term 1-4 family mortgage originations and 13 percent of multifamily mortgage originations.

With net savings inflows on the decline for most of 1979, non-traditional mortgage investors through secondary mortgage markets became more important sources of mortgage credit. Mortgage company originations of 1-4 family mortgages totaled $44.4 billion in 1979, up from $34.4 billion, for a 24 percent share of the market compared to 19 percent in 1978. Most of these mortgages were either sold to federal credit agencies and life insurance companies or packaged into mortgage pools. Besides increasing their purchases of 1-4 family mortgages, life insurance companies in 1979 also increased their originations of 1-4 family mortgages by $1 billion to $1.8 billion.

While the total volume of long-term mortgage loan orignations on multifamily properties declined from $16.6 billion to $15.5 billion in 1979, originations on new multifamily properties was up by $1.1 billion for total of $7.8 billion. Lending for existing multifamily properties was down once again totaling $7.4 billion compared to $9.9 billion in 1978. As in 1978 most of the increase in the volume for new multifamily properties was due to an increase in originations by federal credit agencies (from $1.6 billion to $2.4 billion). Once again, the major reasons for the decline in the volume of originations on existing multifamily properties was the record high costs of refinancing and the continued increase in conversions of rental property into condominiums. The major sources of multifamily mortgage credit in 1979 were S&L's ($4.8 billion, or 31 percent of the volume), federal credit agencies ($2.7 billion), mortgage companies ($2.1 billion), commercial banks ($2.0 billion), and life insurance companies ($1.7 billion).

As previously mentioned, secondary market transactions for loans on 1-4 family homes were especially important to the volume of residential mortgage credit generated in 1979. The total volume of 1-4 family home mortgage purchases totaled $73.7 billion, up from $63.9 billion in 1978. Federally supported mortgage pools made up more than 39 percent of the volume compared to 36 percent in 1978. In addition, conventional mortgage pools insured by private mortgage insurers, which first began in 1977, more than doubled their $1.1 billion 1978 volume to $2.6 billion. Life insurance companies increased their purchases from $.8 billion to $1.5 billion, and state and local credit agencies raised theirs from $.9 billion to $1.7 billion. As in 1978, federal credit agencies were the second most important source of secondary market credit for home mortgages, however, their volume purchased declined from $18.8 billion to $16.3 billion. It should be noted that federal credit agency net purchases, i.e., purchases minus sales of 1-4 family mortgages increased in 1979 from $9.7 billion to $10.4 billion).

The moderate level of starts of single family housing units in 1979 combined with rising costs of labor and materials as well as land prices resulted in slight increase in the volume of 1-4 family mortgage construction loans - from $38.8 billion to $38.9 billion. Of the major sources of construction mortgage credit only S&L's volume was down significantly from 1978 levels. S&L's originated $18.5 billion in 1-4 family construction loans for a 48 percent share compared to 52 percent in 1978. Commercial banks were the second most important source with $15.5 billion (40 percent), mortgage companies with $3.5 billion (9 percent), and mutual savings banks with $1.1 billion. Construction loan extentions for multi-family properties followed the increase in 1978 with a record $11.5 billion volume. Most of the increase is accounted for by originations by commercial banks (from $5.4 billion to $6.1 blion) and federal as well as state and local credit agencies. S&L's accounted for 17 percent of the volume, and mortgage companies contributed 11 percent.

B. Mortgage Interest Rates

Given the past performance of housing as an inflation hedge, demand for mortgage funds remained strong during most of 1979 despite record mortgage interest rates. Not until the sudden tightening of credit on October 6 by the Federal Reserve which pushed mortgage commitment rates up 100-150 basis points did mortgage demand subside. Effective conventional interest rates on loans for the purchase of newly built homes (FHLBB series) rose from 10.02 percent in December 1978 to 11.6 percent in December 1979. Similarly, effective conventional rates on loans for the purchase of previously occupied homes rose 181 basis points over the past year to 11.89 percent, also a record level.

Interest rates on FHA insured and VA guaranteed home loans generally move with the yields established in the secondary market for these loans. Based on HUD's secondary FHA market survey, effective rates rose steadily from 10.16 percent in December 1978, to 11.37 percent by October 1979. Following the Fed's actions to restrict credit, effective yields rose to 12.41 percent by the end of November, receding slightly in the face of warning demand to 12.24 percent by the end of the year.

The rise in effective mortgage interest rates generally out-paced increases in yields on long-term marketable securities. During 1979, effective yields on new and existing conventional mortgages rose 162 and 181 basis points, respectively. In comparison, the yields on Treasury bonds (20 year constant maturity) rose only 119 basis points (from 8.9 percent to 10.1 percent); the yield on corporate AAA rated bonds increased 147 basis points (from 9.16 percent to 10.63 percent); and the yield on tax-exempt municiapl bonds (Bond Buyer Series) rose 65 basis points (from 6.61 percent to 7.26 percent).

The growth of the already wide spread between effective mortgage yields and other marketable security yields, together with the improved liquidity of secondary markets of both federally, and privately insured as well as uninsured mortgages have been responsible for the continued active role of commercial banks and mutual savings banks, and the increased participation of life insurance companies. The record mortgage interest rates experienced in late 1979 are directly attributable not only to the credit tightening measures taken by the Federal Reserve, but also to the growth in demand for housing as an inflationary hedge.

During 1979 the Secretary of HUD and the Administrator of the Veteran's Administration increased the maximum interest rate on FHA insured and VA guaranteed home loans on three occasions. On April 23 the ceiling for single family home loans was raised from 9.5 percent to 10 percent. On September 26 the ceiling for single family home loans was raised once more to 10.5 percent. Finally, on October 26 the single family ceiling was raised to a record 11.5 percent. The ceiling on multifamily FHA insured mortgages was changed only once in 1979 from 9.5 percent to 11.00 percent on October 26.

In all cases, the increases in the ceiling rates were in response to rapidly rising mortgage market yields, which necessitated unusually high discount points to equalize the effective yields with yields on national secondary markets.

Housing Finance in 1980

A. Supply of Mortgage Funds

A diversity of pressures: continuing inflation in the face of an economic slowdown, external pressures on the dollar, a growing tensity in international affairs, and an expected major restructuring of short term corporate debt into longer term financing will make mortgage financing scarce and expensive through most of 1980. Moreover, high rates of inflation will generate exceptionally large demands for credit in 1980 from both the public and private sectors.

Mortgage markets will be in direct competition with heavy long-term credit demands from the corporate, federal and municipal sectors. With many corporate liquidity ratios already well below the secular lows of 1974, many corporations are expected to restructure their debt composition toward the capital markets. Federal, state and local governments face financing deficits inflated by rising prices and wages and lower revenues accompaning the economic slowdown. U.S. Treasury financing will be further aggravated by the increasing emphasis on military expenditures.

In projecting mortgage activity for 1980, several key assumptions were necessary regarding both expected demand and supply of mortgage funds. Although mortgage interest rates reached record heights in 1979, demand for mortgage funds remained unusally strong. Demographic changes in the population in recent years have boosted underlying demand for housing for several years to come. In addition, homeownership has proven to be an increasingly superior hedge against inflation. Home price increases

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have averaged 10.7 percent since 1970, 15 percent over the last three years - well above the overall inflation rates for those periods. This peformance of homes as an assset has more than offset the high mortgage interest rates of these same years. Moreover, as inflation pushes more family incomes into higher marginal tax brackets, the tax savings advantages of homeownership become more pronounced.

While the underlying demand for housing due to demographic changes will continue to provide some floor for housing demand, some of the inflation hedge advantage of homeownership has deteriorated. With home prices increasing so rapidly in the past few years, fewer first-time home buyers have been able to save enough for downpayments, undercutting this segment of home buying demand. Moreover, despite the sizable increases in home values, the rapid increase in home mortgage rates to levels above 12% means that homeowners considering trading up to more expensive homes would incur sizeable capital losses in giving up their considerably cheaper mortgage on their present homes. The scarcity of mortgage funds in the fourth quarter of 1979, together with the record high mortgage commitment rates, cut housing demand to the extent that the average price of homes sold in the fourth quarter actually dropped, moderating expectations of future homes prices. Therefore, housing demand is expected to be weak during the first half of 1980, gradually growing in strength in the second half as mortgage interest rates recede and credit becomes more readily available. Home prices are also expected to increase more rapidly as demand picks up.

Basic to all of the assumptions above is that the Federal Reserve will be more successful in combating inflation in 1980 than it was in 1979. No improvement in interest rates will occur without lower inflation expectations. Without an improvement by the third quarter in mortgage interest rates from the current record levels, mortgage originations will likely be lower than levels forecasted here. While in such a scenario additional federal credit agency net purchases and guarantees of net issues of pass-through mortgage pools would likely pick up part of the slack, total mortgage originations would be lower than the levels forecasted here.

According to the projections presented in Table 12, originations of long-term loans for 1-4 family homes are expected to total $171.3 billion, of which $54.8 billion are to finance new homes, and $116.3 billion are to finance existing homes. The total amount is well below the record $184.3 billion of house mortgage loans closed in 1978. But, the lower amount, because of the effect of inflation on average loan amounts, implies an even greater decline in the number of mortgage loan originations. Savings and loan associations are expected to originate $82.5 billion of home mortgage loans while commercial banks and mortgage companies will account for $39.5 billion and $44.7 billion respectively. With loanable funds at depository institutions in short supply, and with the spread mortgage rates and other capital market rates expected to remain substantial, a record volume of privately insured and federally guaranteed mortgage pools is expected to help to sustain the flow of funds into the mortgage market. Federally insured mortgage pools are expected to total $37.4 billion with privately insured pools providing $4.1 billion. Net purchases of $8.6 billion by federal credit agencies will also provide a major source of credit. (For further details see Appendix D.)

Originations of long-term loans for multifamily properties are also expected to decline in 1980, totaling $11.5 billion compared to $15.5 billion in 1979. Record levels of mortgage interest rates and uncertainties created by the spread of rent control legislation will curtail construction of new multifamily units. These same factors are responsible for increased conversions of existing rental stock to condominiums and for lessened demand for mortgage financing of existing multifamily units. Major sources of financing multifamily properties in 1980 will be S&L's ($3.6 billion), commercial banks ($1.7 billion) life insurance companies ($1.6 billion), and federal credit agencies ($1.6 billion). (For further details see Appendix D).

Appendix A

Federal Aids for Housing

Federal assistance for housing takes many forms, varying from indirect subsidies such as tax provisions favoring housing and GNMA support of the secondary mortgage market to the more easily recognized direct assistance provided by cash subsidy programs for low-and moderate-income families. This appendix details the various forms of housing assistance under three broad categories: I. Tax Incentives; II. Housing Credit Assistance; and III. Cash Subsidy Programs.

I. Tax Incentives (Tax Expenditures)

The Federal tax law provides significant indirect subsidies which encourage construction of and occupancy of both owner-occupied and rental housing. The tax incentives for housing include:

(1) Homeowner deductions of mortgage interest and real estate taxes;

(2) Deferral or non-recognition of capital gains on sales of owner-occupied homes;

(3) Accelerated depreciation on rental property;

(4) Five-year write-off of rehabilitation expenditures on low- and moderate-income rental property;

(5) Deduction of construction-period interest and taxes;

(6) Excess bad debt reserve deductions of mutual savings banks and savings and loan associations;

(7) Exclusion of interest on state and local housing bonds.

It is estimated that for calendar year 1978 these special provisions of the tax law accounted for a reduction in Federal tax liabilities of $15.7 billion. In 1979, the reduction is estimated to be $20.5 billion.

A. Homeowner Deductions of Mortgage Interest and Real Estate Taxes

By far the largest housing tax subsidy is the deduction by homeowners of mortgage interest payments and local real estate taxes in determining taxable income. These deductions are considered tax incentives because they are allowed even though homeowners are not taxed on the implicit income from homeownership.

It is estimated that for 1978 the allowance of these deductions decreased Federal tax liabilities by $12.8 billion, and in 1979, $17.2 billion. The sum of the two used separately is greater than the two combined because if either were deleted more taxpayers would use the standard deduction instead of itemizing. The mortgage interest deduction alone in 1978 would have amounted to $8.0 billion; the real estate tax deduction alone, to $5.8 billion. In 1979, the mortgage interest deduction alone would have been $11.2, and the real estate tax deduction alone, $7.0 billion.

This form of tax assistance favors high income taxpayers because the tax savings from such deductions vary directly with the tax bracket of the taxpayer. Persons with the lowest incomes receive no direct benefit from the deductions because they pay no tax. Some homeowners, mostly in lower income brackets, find it more advantageous to take the standard deduction than to itemize their housing related and other deductions. As can be seen from

Table A-1 for 1978, it is estimated that 26 percent of all tax returns claimed these deductions with an average tax savings of $556. But of all returns with income above $100 thousand, 87 percent claimed the deduction, with an average saving of $2,798. Table A-2 for 1979 shows an estimate of an average tax savings of $724 for the 26 percent claiming these deductions, while for returns above $100 thousand, 86 percent claimed the deduction with an average saving of $3,320.

B. Non-recognition of Capital Gain on Sales of Owner-Occupied Homes

The Internal Revenue Code does not require the immediate recognition of a capital gain on the sale of an owner-occupied residential property, if the homeowner purchases another primary residential property of equal or greater value within a specified time period. Any income tax due for such capital gain is deferred. In addition, a taxpayer who has attained a certain age may exclude a portion of the gain from income even if he does not purchase a new home. For sales before July 27, 1978, taxpayers age 65 and over could exclude the gain attributable to $35,000 of the sales price less certain expenses. For sales on or after July 27, 1978, taxpayers age 55 and over can exclude from income the first $100,000 of gain. The reduction in tax liabilities from the deferral and exemption of capital gains on home sales is estimated to be $1.4 billion for 1978, and $1.5 billion for 1979.

C. Accelerated Depreciation on Rental Property

The Federal Government provides a tax incentive to owners of rental properties to the extent that allowable depreciation for tax purposes exceeds the rate at which buildings actually depreciate. The tax benefit of accelerated depreciation is generally partly offset by "recapture" as ordinary income of part of the gain at the time of sale.

The Tax Reform Act of 1969 reduced the amount of accelerated depreciation on commercial and industrial properties, thus introducing a systematic bias in favor of rental housing. It should be recognized, however, that with an exception for rehabilitated structures provided by the Revenue Act of 1978 buildings are not eligible for the investment tax credit, an important subsidy for investment in new machinery and equipment.

The reduction in income tax liabilities of allowing, for rental housing only, depreciation methods for tax purposes which are more accelerated than straight-line depreciation is estimated to be $0.4 billion in 1978 and also in 1979.

D. Five-Year Write-Off of Rehabilitation Expenditures of Low- and Moderate-Income Rental Property

Section 167(k) provides that owners of multifamily rental property may depreciate improvements made to their property on a straight-line basis over a sixty-month period, so long as (a) the property is rented to persons of low- and moderate-income; and (b), that at least $3,000 per unit is expended over a period of two consecutive years and (c) that the aggregate amount to be depreciated over the five years does not exceed $20,000 per unit. This provision is scheduled to expire December 31, 1981, with an exception for expenditures incurred pursuant to a binding contract in effect on that date. The estimated reduction in income tax liabilities from this provision is $15 million in each of 1978 and 1979.

E. Deduction of Construction-Period Interest and Taxes

Prior to enactment of the Tax Reform Act of 1976, all investors could deduct mortgage or bond interest and state and local taxes on a building before it was put into service, thereby creating a "tax loss" in that period. This tax loss, which did not reflect an economic loss, could be offset against income from other projects and resulted in a postponement of tax. The 1976 Act requires noncorporate and Subchapter S investors to amortize the interest and taxes over 10 years by 1982 for non-residential real estate, 1984 for residential real estate, and 1988 for government-subsidized low income housing.

The tax saving resulting from the deduction of construction period interest and taxes for residential property only is estimated to be $0.1 billion per year in 1978 and 1979.

F. Excess Bad Debt Reserves

Although the Tax Reform Act of 1969 cut back on the tax preferences afforded financial institutions in determining taxable income, mutual savings banks and savings and loan associations may still deduct additions to bad debt reserves which are in excess of actual losses. These deductions exceed the deductions allowed ordinary business for bad debts and are provided in order to encourage lending on residential properties, the principal lending activity of these thrift institutions. It is estimated that this tax preference reduced Federal tax liabilities by $0.6 billion in both 1978 and 1979.

Table A-1

Revenue Cost of Allowing Homeowners' Deductions for Mortgage Interest and Real Estate Taxes

(1978 Law, 1978 Levels)

Expanded income class	Returns with tax savings: Number of returns	Returns with tax savings: Percent of all returns filed in class	Average tax savings (returns with savings)	Total revenue cost	Revenue cost as percent of total tax paid by members of class
($000)	(thousands)	(percent)	(dollars)	($ millions)	(percent)
Under 5	141	0.6%	$ 75	$ 11	7.7%
5 - 10	1,526	8.0	147	224	2.7
10 - 15	3,274	23.2	211	690	4.0
15 - 20	4,563	39.3	283	1,292	5.4
20 - 30	7,504	57.8	463	3,475	7.8
30 - 50	4,530	77.6	909	4,119	10.5
50 - 100	1,197	83.8	1,759	2,106	8.8
100 and over	326	86.6	2,798	913	3.4
Total	23,062	26.1%	$ 556	$12,830	7.0%

Office of the Secretary of the Treasury
Office of Tax Analysis

January 16, 1979

Note: Details may not add to totals because of rounding.

Table A-2

Revenue Cost of Allowing Homeowners' Deductions for Mortgage Interest and Real Estate Taxes

(1979 Law, 1979 Levels)

Expanded income class	Returns with tax savings: Number of returns	Returns with tax savings: Percent of all returns filed in class	Average tax savings (returns with savings)	Total revenue cost	Revenue cost as percent of total tax paid by members of class
($000)	(thousands)	(percent)	(dollars)	($ millions)	(percent)
Under 5	83	0.4%	$ 104	$ 9	1/
5 - 10	1,083	5.8	172	187	2.8%
10 - 15	2,553	17.6	254	649	3.7
15 - 20	3,955	33.3	331	1,310	5.4
20 - 30	8,153	51.7	536	4,369	8.3
30 - 50	5,924	73.9	1,023	6,058	11.9
50 - 100	1,658	82.9	2,048	3,395	11.0
100 and over	375	85.6	3,320	1,245	4.2
Total	23,785	25.6%	$ 724	$17,221	8.1%

Office of the Secretary of the Treasury
Office of Tax Analysis

Note: Details may not add to totals because of rounding.

1/ Total tax paid by members of this class is a negative amount.

G. Exclusion of Interest on State and Local Housing Bonds

State and local tax-exempt bond proceeds may be used for housing--multi-family and single family. Traditionally these funds have been allocated by state and local agencies to low-income multi-family housing. Recently there has been a trend towards higher income limits and the use of local government bond issues to finance individual home mortgages with thrift institutions serving as intermediaries. The estimated reduction in Federal income tax liabilities from the exclusion of interest on housing bonds is $0.4 billion for 1978, and $0.6 billion for 1979.

II. Housing Credit Assistance

This section deals with the array of Federal credit programs designed to assist in the provision of mortgage funds to finance the nation's housing requirements. These programs represent a repertory of tools which can be called upon to stimulate or augment the flow of capital into the residential mortgage market, helping to assure that the housing sector receives a more adequate share of the nation's credit resources. These credit assistance programs have been classified under the following headings: (A) Underwriting Credit Risks; (B) Mortgage Market Support; (C) Direct Lending; and (D) Capital Market Innovations.

A. Underwriting Credit Risks

Federal Government assistance for housing includes the mortgage insurance and guarantee programs of the Federal Housing Administration (FHA), and the Veterans Administration (VA). Although these programs generally are not considered subsidy programs, they enable many families to obtain mortgage loans with lower downpayments, and longer repayment periods. The FHA programs have demonstrated the workability of long-term amortized loans, while the VA programs have helped veterans obtain mortgage credits from private sources on better terms than they could otherwise have obtained.

In addition to the insurance and guarantees provided by FHA and VA, the Government National Mortgage Association guarantees the timely payment of principal and interest on GNMA mortgage-backed pass-through securities. However, the underlying credit risk for the mortgages in the pool of loans which back the GNMA security is borne by FHA and VA.

The continuing success of these Government mortgage loan insurance programs pointed the way to increased liberalization of non-rate terms on conventional mortgages and the re-establishment of private mortgage credit insurance companies (PMCI's). These companies were also aided by favorable Federal income tax treatment for transfers to contingency reserves and by rising real estate values, and were further encouraged by the Emergency Home Finance Act of 1970, which provided for two secondary market facilities for conventional loans: the creation of the Federal Home Loan Mortgage Corporation (FHLMC) and the expansion of the purchasing authority of the Federal National Mortgage Association (FNMA) to include conventional loans. Both FNMA and FHLMC may purchase conventional loans with high loan-to-value ratios if private mortgage insurance or guarantees are involved. Federal Home Loan Bank Board regulations for Federal savings and loan associations permit these associations to invest in mortgages having loan-to-value ratios of over 90 percent under the condition that these loans be privately insured (or a special reserve is created).

Private mortgage credit insurance companies increased their home loan insurance activity from $21.6 billion in 1977, or 13.8 percent of the market for both conventional and government-underwritten home loans, to $27.3 billion in 1978 or 15.5 percent of such loans. Activity decreased by $2 billion to $25.3 billion in 1979, or 14.0 percent of these loans.

The combined volume of Federally underwritten loans (including those insured by FHA and guaranteed by VA) kept pace with the market in 1978. They increased to $25.6 billion or 14.5 percent of the market, from $22.7 billion, also 14.5 percent of the 1977 market. In 1979, the volume rose to $34.7 billion, and 19.2 percent of the market.

Table A-3 shows the share of activity of FHA, VA, and PMCI's, not by dollar volume, but by numbers of cases insured (FHA), loan application approved (VA), or insurance certificates issued (PCMI's). Conventional loans without insurance or quarantees are excluded. After a peak in 1973 PMCI's have worked their way back to a 50 percent share of this activity in 1978, but the share fell to under 42 percent in 1979 as usury ceilings in many states constrained conventional lending while exempting FHA or VA loans in most cases. The FHA Section 245 Graduated Payment Mortgage loans also were a factor in FHA's increasing share of this market.

B. Mortgage Market Support (Other than Insurance and Guarantees)

Several Federally sponsored efforts are directed towards (1) moderating cyclical fluctuations in the supply of mortgage credit; (2) channeling mortgage funds from capital-abundant areas to capital-deficient areas; and (3) increasing the liquidity of mortgage-oriented institutions, thus facilitating expanded lending activity. Essentially, these objectives are carried out by three Federally sponsored agencies: through the secondary market operations of the Federal National Mortgage Association (FNMA), and the Federal Home Loan Mortgage Corporation (FHLMC), and through loan advances from the Federal Home Loan Banks (FHLB) to member savings and loan associations and mutual savings banks.

Table A-3

FHA, VA and PMCI Shares of Insured-Guaranteed Mortgage Activity
(New and Existing Housing)
(Number of Cases)

	Total	FHA Mortgages Insured	VA Loan Guaranty Applic. Approved	PMCI New Certificates Issued
1970	699,125	471,981	167,760	59,384
1971	1,011,065	565,417	282,314	163,334
1972	1,193,873	427,858	370,007	396,008
1973	1,055,518	240,004	315,619	499,895
1974	836,480	195,850	309,984	330,646
1975	876,313	255,061	299,048	322,204
1976	1,030,235	250,808	328,617	450,810
1977	1,337,614	321,118	399,098	617,398
1978	1,384,504	334,108	354,776	695,620
1979	1,391,270	457,054	356,105	578,111

Percent Distribution

	Total	FHA	VA	PMCI
1970	100.0%	67.5%	24.0%	8.5%
1971	100.0	55.9	27.9	16.2
1972	100.0	35.8	30.0	33.2
1973	100.0	22.7	29.9	47.4
1974	100.0	23.4	37.1	39.5
1975	100.0	29.1	34.1	36.8
1976	100.0	24.3	31.9	43.8
1977	100.0	24.0	29.8	46.2
1978	100.0	24.1	25.6	50.2
1979	100.0	32.8	25.6	41.6

Sources: FHA Monthly Reports of Operation
VA Loan Guaranty Trends
HUD Press Releases on PMCI Activity

FNMA, the largest secondary market facility, was chartered initially in 1938 as a Federal Government agency. Thirty years later, with certain of its initial functions given to the new Government National Mortgage Association (GNMA), it became a Federally sponsored agency when the Treasury retired the preferred stock it held. FNMA performs its secondary market operations through an auction, under which it issues commitments to purchase mortgage loans, including conventional loans, on a competitive bid basis.

The Federal Home Loan Mortgage Corporation, created in 1970 by the Emergency Home Finance Act, is authorized to purchase residential mortgage loans and participations in such loans from members of the Federal Home Loan Bank System and other approved financial institutions, the deposits of which are insured by an agency of the United States.

The Federal Home Loan Bank System, created in 1932, provides a source of credit to member Savings and Loan Associations and Mutual Savings Banks to meet mortgage commitments and withdrawals. These loans are in the form of short term and long term advances which are usually secured by mortgages pledged as collateral.

Secondary market purchases by FNMA and FHLMC amounted to $17.2 billion in 1978, compared with $8.9 billion in 1977. These purchases amounted to $15.1 billion in 1979. Savings and Loan Associations obtained $12.0 billion in FHLB advances during 1978, and $ 8.3 billion in 1979. Advances outstanding amounted to $40.4 billion on on December 31, 1979. In 1978, support operations increased to a total of $29.3 billion, to help satisfy the heavy demand for mortgage funds. Support operations totalled $23.4 billion in 1979.

C. Direct Lending

Several Federal agencies (the operations of which are included in the Federal Budget) continue to provide mortgage loans by direct loan programs and support price transactions. The direct loan programs serve one or both of the following two purposes: (1) to provide financing where private credit is not generally available; and (2) to reduce the cost of financing under terms which otherwise would prevail.

The direct loan category includes the Small Business Administration loans to victims of natural disasters, the Veterans Administration mortgage loans to veterans in rural areas and small cities if guaranteed or insured loan funds are unavailable, and the Farmers Home Administration repair loans to very low-income families in rural areas. Under certain circumstances FHA and VA make residential loans by taking back purchase money mortgages on the sale of "acquired properties". These properties are obtained through foreclosure involving a defaulted FHA or VA underwritten mortgage loan. FHA and VA also accept assignment of loans in default. The Federal Land Banks also make direct home loans in rural areas. Total direct loans under the above programs amounted to $1.9 billion in 1978 and $1.3 billion in 1979.

The Government National Mortgage Association makes loans, in effect, by purchasing certain types of mortgages under its special assistance programs: the purchase of FHA-insured mortgages with subsidized interest rates to finance multifamily housing for low- and moderate-income families, or the purchase of mortgages with high risk (disaster housing, urban renewal housing) which otherwise would sell at substantial discounts in the market. Most of GNMA's special assistance programs are now operated under the "Tandem plan", as a means of countering decline in homebuilding activity. Under the plan, GNMA issues commitments for FHA/VA or conventionally financed mortgages at interest rates slightly below those prevailing in the private market. Armed with commitments builders can more easily acquire the construction loans they need to maintain a more sustained level of production. If the loan is delivered, GNMA in turn resells the loans to private investors at prevailing market prices, absorbing the difference between purchase and sales prices and thereby limiting the ultimate Federal outlay for the program to that amount. In 1978, GNMA actually purchased $23 million in loans, a decline of $454 million from the $477 million loans purchased in 1977. In 1979 GNMA purchased $6 million in loans, a decline of $17 million from the previous year.

Table A-4 summarizes the total Federal credit assistance provided for housing during 1978, exclusive of assistance limited to a Federal guarantee or insurance operation. Of the $31,162 million in total credit assistance in 1978, secondary market loan purchases by the quasi-public sector (FNMA and FHLMC) comprised $17,236 million, approximately 55 percent, while FHLB support of savings and loan associations amounted to $12,045 million, about 39 percent. Mortgage market support from all

Table A-4

Federal Credit Assistance for Housing in 1978 and 1979
(Dollars in Millions)

	Loans Acquired CY 1978		Loans Acquired CY 1979		Loans Outstanding December 31, 1979	
	Amount	Percent	Amount	Percent	Amount	Percent
1. Federally sponsored Agency Mtge. Market Support						
a. Secondary Market Purchases						
(i) FNMA	$12,302	39.5%	$10,798	43.6%	$ 51,091	35.8%
(ii) FHLMC	4,934	15.8	4,320	17.4	4,035	2.8
b. FHLB Advances	12,045	38.7	8,331	33.6	40,441	28.4
Subtotal	$29,281	94.0%	$23,449	94.6%	$ 95,567	67.0%
2. Direct Lending						
a. Veterans Administration	$ 43	.1%	$ 25	0.1%	$ 1,730	1.2%
b. Farmers Home Administration	1,426	4.6	501	2.0	821	.5
c. Federal Land Banks	338	1.1	720	2.9	31,278	22.0
d. Small Business Administration	2	2/	5	2/	5,598	3.9
e. FHA Purchase Money Mortgages	49	.2	83	0.3	3,825	2.7
f. Government National Mtge. Assoc. 1/	23	.1	6	2/	3,852	2.7
Subtotal	$ 1,881	6.0%	$ 1,340	5.4%	$ 47,104	33.0%
Total	$31,162	100.0%	$24,789	100.0%	$142,671	100.0%

Note: Detail may not add to totals due to rounding.

1/ GNMA figures are exclusive of FNMA and FHLMC purchases.

2/ Less than .05 percent.

sources totaled $29,281 million, 94 percent of the total, while direct lending in 1978 amounted to $1,881 million, 6 percent of the total. In 1979, support from Federally sponsored agencies represented 94.6 percent of the $24,789 million in federal credit assistance, and direct lending in 1979 amounted to $1,340 million, 5.4 percent of the total.

D. Other Capital Market Support

A total of $14.7 billion of GNMA mortgage backed securities were issued in 1978, a 13 percent decrease from the 1977 figure of $16.8 billion. In 1979, about $22.2 billion were issued. The attractiveness of these securities is that GNMA guarantees the timely payment of principal and interest on securities issued by private lending institutions and backed by a trust or pool of their mortgage loans insured by FHA, or guaranteed by VA. These securities are used to help attract funds from sources which do not have departments to handle a portfolio of mortgages. In effect, the Government is providing a double-barreled underwriting of risk; first, the FHA or VA support of the underlying mortgage loans and second, the GNMA guarantee of whatever uncovered risks still remain (as a result of this guarantee, purchasers do not need the expertise of mortgage specialists).

The Certificates of Beneficial Ownership, (CBO's) issued and insured by the Farmers Home Administration in the Department of Agriculture, represent loans originated by Farmers Home Administration. The loans are made under the Agriculture Credit Insurance Fund, Rural Housing Insurance Fund, and the Rural Housing Development Insurance Fund. FmHA continues to service the loan accounts and makes debt service payments to the holders, irrespective of whether payments are received from the individual borrowers. Total gross sales, all of which were through the Federal Financing Bank, amounted to $10.3 billion in Fiscal Year 1979, $7.7 billion in fiscal year 1978, and $5.0 billion in 1977.

III. Cash Subsidy Programs for Production of New or Rehabilitated Housing

This section details the direct Federal assistance given to low and moderate-income housing through the cash subsidy programs of the Department of Housing and Urban Development and the Farmers Home Administration of the Department of Agriculture (Section IV discusses the Subsidization of existing housing with some of the same programs). Through such programs production was begun on 264,610 new or substantially rehabilitated housing units in FY 1978 and 277,248 units in FY 1979. The cost of subsidizing all units completed and eligible for payment by HUD was approximately $3.6 billion in FY 1978 and $4.2 billion in FY 1979. It is expected that HUD housing programs will require about $5.1 billion in subsidies in FY 1980, and $6.4 billion in 1981.

Table A-5 shows the numbers of units on which new construction was started or rehabilitation was begun, by program, for fiscal years 1978 and 1979 and estimates for FY 1980 and FY 1981.

It should be noted that interest subsidies and other direct aids intended to produce new housing do not necessarily increase housing production on a one-for-one basis. Over a given time period, some subsidized production may, to some extent, merely supplant production which would have occurred without subsidy. In such cases, the final effect would be primarily redistributive, directing units to low and moderate-income households.

A-5

Federally Subsidized Housing Production Fiscal Years 1978-1980

	Total Production				New Construction Starts				Rehab Begun			
	1978	1979	1980e	1981e	1978	1979	1980e	1981e	1978	1979	1980e	1981e
Total Subsidized Production	264,610	277,248	284,547	262,906	232,190	236,603	244,783	231,744	32,420	40,645	39,764	30,637
HUD	178,860	179,719	194,600	188,500	157,320	153,321	169,600	168,500	21,540	26,398	25,000	20,000
FmHA Programs	85,750	97,529	89,947	74,406	74,870	83,515	75,183	63,244	10,880	14,014	14,764	11,162
1-4 Family, Total	68,850	74,135	81,415	69,067	58,540	60,621	67,250	58,430	10,310	13,514	14,165	10,637
HUD-Sec. 235	7,380	8,489	17,500	17,500	7,380	8,489	17,500	17,500	--	--	--	--
FmHA(502 Prog)	61,470	65,646	63,915	51,567	51,160	52,132	49,750	40,930	10,310	13,514	14,165	10,637
Low Inc.	42,160	47,807	47,230	42,980	35,780	39,228	37,950	34,900	6,380	8,579	9,280	8,080
Moderate Inc.	19,310	17,839	16,685	8,587	15,380	12,904	11,800	6,030	3,930	4,935	4,885	2,557
Multifamily Total	195,760	203,113	203,132	193,839	173,650	175,982	177,533	173,314	22,110	27,131	25,599	20,525
HUD	171,480	171,230	177,100	171,000	149,940	144,832	152,100	151,000	21,540	26,398	25,000	20,000
Public Hsg.	11,330	17,269	35,000	50,000	9,280	17,269	30,000	45,000	2,050	--	5,000	5,000
Sec. 8	158,500	153,251	140,000	121,000	139,010	126,853	120,000	106,000	19,490	26,398	20,000	15,000
Sec. 236	1,650	710	2,100	--	1,650	710	2,100	--	--	--	--	--
Sec. 202	(23,370)	(23,860)	(18,000)	(18,000)	(23,370)	(23,860)	(18,000)	(18,000)	--	--	--	--
FmHA	24,280	31,883	26,032	22,839	23,710	31,383	25,433	22,314	570	500	599	525
Without Sec. 8 Asst.	24,280	31,883	26,032	22,839	23,710	31,383	25,433	22,314	570	500	599	525
With Sec 8 Asst.	(8,750)	(8,064)	(10,000)	(10,000)	(8,750)	(8,064)	(10,000)	(10,000)	--	--	--	--

A. Homeownership Subsidy Programs

1. Section 235 Homeownership Program

In October 1975, the Section 235 program was reactivated with the release of $264.1 million in contract authority to subsidize approximately 250,000 units of single-family housing and condominiums. The reactivated Section 235 program differs considerably from the old suspended 235 program in several important respects in an effort to eliminate the problems that arose under the original program. Important changes in the program include: (1) Adjustments in income eligibility requirements, (2) higher downpayment requirements to foster a greater commitment to the property by the mortgagor, (3) site limitations permitting no more than 40 percent subsidized units in any subdivision in order to avoid excessive concentration of subsidized units, (4) a reduction in the maximum amount of subsidy involved, and (5) deletion from program eligibility of existing units not undergoing substantial rehabilitation.

Under the new Section 235 program 7,380 units were started in FY 1978 and 8,489 units were started in FY 1979. It is estimated that 17,500 units will be started in FY 1980 and also in FY 1981.

2. Section 502 Programs of the Department of Agriculture

Through these programs, the Farmers Home Administration (FmHA), U.S. Department of Agriculture, provides loans to low-and moderate-income families for new construction, rehabilitation, repairs and the purchase of existing buildings located in rural areas. Interest rates vary, but there are interest credit provisions which can bring the effective interest rate down to 1 percent for low-income families. Loans to moderate-income families are made at a rate not less than a rate determined by the Secretary of the Treasury, taking into consideration the current average market yield on outstanding obligations of the United States with comparable maturity.

In fiscal year 1978, the FmHA homeownership programs added 61,470 units to the Nation's inventory, of which 42,160 units were for low income families and 19,310 units were for moderate income families. In 1979 there were 65,646 units, of which 47,807 units were for low income families and 17,839 were for moderate income families. About 83 percent of the units were new, and 17 percent were rehabilitations in FY 1978. In FY 1979, 79% were new and 21% were rehabilitations. Future activity under this program is estimated at 63,915 units in FY 1980, and 51,567 units in FY 1981.

B. Rental Housing Subsidy Programs

1. Section 236 Interest Subsidy Program

In fiscal year 1978, there were 1,650 units started under the Section 236 program and 710 units started in FY 1979, all of them newly constructed. Under commitments issued prior to suspension of the program in January 1973, and additional 2,100 units are expected to be produced in this program in FY 1980. The Housing and Community Development Act of 1974 revised the Section 236 program to incorporate "deep" subsidies (subsidies larger than the traditional reduction of interest rates to as low as 1 percent) on 20 percent of the units approved after August 22, 1974. Prior to that time, rent supplement payments in addition to Section 236 interest subsidies (rent supplement "piggy-back" program) were used.

2. Low-Rent Public Housing

In FY 1978 and FY 1979 construction was started respectively on 9,280 and 17,269 traditional low-rent publicly-owned housing units. Rehabilitation was begun on 2,050 units in FY 1978. Fiscal year 1980 production is projected to total 35,000 units. In FY 1981, total production is estimated at 50,000 units.

3. Section 8 Lower Income Housing Assistance

The Housing and Community Development Act of 1974 amended the United States Housing Act of 1937 to authorize a new lower-income housing assistance program, for households with incomes up to 80 percent of the median income in the area. It replaces prior authority for assistance with respect to low-income housing in private accommodations (Section 23).

Under Section 8, assistance payments are provided on behalf of eligible low-income families occupying new, rehabilitated or existing rental units. The Department of Housing and Urban Development may make assistance available through payments to State agencies, local public housing agencies authorized to engage in or assist in the development or operation of lower-income housing pursuant to annual contribution contracts, or by entering into assistance payments contracts directly with owners of housing units who agree to rent to lower-income families.

To be eligible for assistance under Section 8, a family's income, except in special cases, cannot exceed 80 percent of the median income of the area in which it lives. Also, at least 30 percent of the units in each leasing program are to be rented to very low-income families whose incomes do not exceed 50 percent of the median income for the area. Eligible families are required to pay rents of between 15 percent and 25 percent of their gross annual income. HUD provides assistance payments which will not exceed the difference between the contract rents of comparable units in the area and the occupant families' required contribution for rent. Tenants make their rental payments to the private landlords, who are responsible for the operation and maintenance of the leased units.

During FY 1978, approximately 158,500 units were begun under Section 8 production activities, of which 139,010 were new and 19,490 were rehabs. In FY 1979 there were a total of 153,251 units, of which 126,853 were new and 26,398 were rehabs. It is anticipated that 140,000 units will be started (new and rehab) in FY 1980 and 121,000 units in FY 1981.

4. Section 202 Program

This direct loan program to provide housing for the elderly and the handicapped was established in 1959 and was phased out in favor of the Section 236 interest subsidy program after 1968. The Housing and Community Development Act of 1974 contained a revised Section 202 direct loan program for housing the elderly and handicapped. It has been decided to use the revised Section 202 for permanent financing loans, as well as for construction loans. Loan authority of $750 million was available for permanent financing in FY 1978, $800 million was available in FY 1979, $830 million is available for FY 1980, and $830 million is proposed for 1981. In FY 1978, an estimated 23,370 units were started, and an additional 23,860 units were started in FY 1979. In FY 1980 and 1981, 18,000 units are anticipated for each year. These units are not included in estimates of total starts since it is expected that these units will receive Section 8 assistance and are, therefore, already counted under Section 8.

5. Rental Housing Programs of the Department of Agriculture

Production under the rural rental housing programs, primarily Section 515, administered by Farmers Home Administration (FmHA) totalled 34,810 units in FY 1978 and 41,225 units in FY 1979. In FY 1980 it is estimated that a total of 37,185 new and rehabilitated units will receive assistance under these programs and an estimated 33,890 units will receive assistance in FY 1981.

Rehabilitation was begun on 570 units and there were 23,710 units started under the FmHA rural housing program without Section 8 assistance in FY 1978. The corresponding figures for FY 1979 were 500 rehabilitation units and 31,383 units started. An additional 8,750 units were started with Section 8 assistance in FY 1978 and another 8,064 units were started in FY 1979. Since the new units with Section 8 assistance are already counted under the Section 8 program, they are not added to total production. In FY 1978, and FY 1979, respectively, starts and rehabs totalled 24,280 and 31,883 units without Section 8 assistance. In FY 1980 and 1981, production is estimated at 26,032 and 22,839 units, respectively, without Section 8 assistance. An additional 10,000 units with Section 8 assistance are projected for each year.

In FY 1978, the Farmers Home Administration began a rental assistance program under which it supplemented the rental payments of low-income tenants occupying FmHA subsidized rental housing. This new program represents an increased emphasis on rural rental programs. In FY 1978 and FY 1979, 20,000 and 22,623 units respectively received assistance from this program. The estimates for FY 1980 and 1981 are 20,000 and 17,230 units respectively.

IV. Cash Subsidy Programs for Use of Existing Housing for Lower-Income Households

The cash subsidy programs also provide assistance for existing adequate housing that does not require rehabilitation. Although such assistance is not reflected in the housing production statistics, it does help bring sound homes within the means of many who could not otherwise afford them. Use of the existing housing inventory for low and moderate income families is discussed in detail in this section.

Table A-6 shows the number of additional existing units, or households in existing units, which are Federally subsidized for low-and moderate-income occupancy in each of fiscal years 1978-1981.

The new Section 8 Leasing Program created by the Housing and Community Development Act of 1974 permits a greater emphasis than before on the use of the existing housing stock rather than on new construction, thus providing a potential to house needy families more quickly and at less cost. In FY 1978, approximately 137,330 existing, adequate units received subsidies under Section 8 and 107,025 units received Section 8 subsidies in FY 1979. In FY 1980 and FY 1981 it is estimated that 66,600 and 55,000 units respectively, will receive subsidies under Section 8.

The Federal government also subsidizes existing rental units occupied by low- and moderate-income families under the low-rent public housing program and the rental housing programs of the Department of Agriculture.

Under HUD's low-rent public housing program 33,609 units were subsidized in FY 1979 and 2,000 existing units were expected to be added in FY 1980. No separate figures are available for this program for FY 1978 nor estimates for FY 1981.

Under the rental programs of the Department of Agriculture, 1,780 and 1,278 existing units without rehabilitation received assistance in FY 1978 and FY 1979 respectively. It is anticipated that 1,153 units will be subsidized under these programs in FY 1980 and an additional 1,051 units in FY 1981.

Homeownership assistance is provided for existing units which do not require substantial rehabilitation under the FmHA Section 502 loan program. Under the FmHA program, purchasers of 36,710 and 27,754 existing homes benefited from below-market interest rate loans in fiscal years 1978 and 1979 respectively. Such assistance will be extended to about 28,285 low and moderate income purchasers in FY 1980 and 23,633 purchasers in FY 1981.

In fiscal years 1980 and 1981 the Farmers Home Administration will continue to emphasize the making of loans to buy existing housing and to rehabilitate and repair housing units. Loans for new dwellings will be made where existing housing is not available or cannot economically be made suitable. It is estimated that in FY 1980 and FY 1981 about 32 percent of loans made under the Section 502 Rural Housing program will be for existing dwellings each year and about 15 and 14 percent for rehabilitation and repair of existing dwellings respectively for each year.

The Section 504 program of FmHA provides loans to very low income families for essential minor repairs (not rehabilitation) to their homes, and thus helps maintain the existing housing stock. The interest rate is set by law at 1 percent. In fiscal year 1978, FmHA assisted 4,393 Section 504 units and 5,213 units were assisted in FY 1979. The estimates for FY 1980 and 1981 are 7,900 and 15,000 units respectively. Beginning in FY 1977 the Section 504 program also began making very low income housing repair grants, primarily to elderly households. In FY 1978 there were approximately 3,183 units assisted under this program and 5,458 units in FY 1979. It is estimated that 6,400 and 6,250 units will receive grants in fiscal years 1980 and 1981 respectively.

Table A-6

Federally Subsidized Use of Existing Units Without Rehabilitation for Low- and Moderate-Income Occupancy, FY 1978-1980

	1978	1979	1980e	1981e
HUD	137,330	140,634	68,600	55,000
Public Housing	--	33,609	2,000	NA
Section 8	137,330	107,025	66,600	55,000
FmHA programs	38,490	29,032	29,438	24,684
Homeownership	36,710	27,754	28,285	23,633
Rental Units	1,780	1,278	1,153	1,051
TOTAL	175,820	169,666	98,038	79,684

Appendix B

Preservation of Existing Housing and Neighborhoods

Focussing solely on the production of new housing overlooks the substantial role of neighborhood and public facilities in creating a satisfactory living environment for the nation's population. An important part of turning around social and economic decline is the preservation and upgrading of the housing stock already in place in urban and rural areas.

This appendix assesses the current condition of the housing stock, examines information on private and publicly assisted maintenance and improvement of existing housing and neighborhoods, and reviews some current research and demonstrations of neighborhood preservation techniques.

I. Characteristics and Condition of the Existing Housing Stock

A. The Annual Housing Survey

The Department of Housing and Urban Development has an agreement with the Bureau of the Census to obtain current data on the characteristics and condition of the housing stock and its neighborhood setting. The HUD-financed Annual Housing Survey uses both national and Standard Metropolitan Statistical Area sampling schemes to collect a wide range of information describing the housing inventory, as well as the occupants' perception of their housing and neighborhoods. The Survey provides more detail than has been available from the decennial census. The first five Annual Housing

Surveys (1973 through 1977) of the United States have now been published, as have surveys for 60 SMSAs. Data for the national 1978 Annual Housing Survey will be published soon.

The 1977 Annual Housing Survey was conducted in the months of September through December 1977, utilizing a national sample of approximately 76,000 housing units drawn from the records of the 1970 Census of Housing and the units completed afterwards. The National data reported here for 1977, in advance of publication, are preliminary. The "as of" date for the 1977 National sample may be taken as approximately November 1, providing a two year interval from the date of the 1975 Annual Housing Survey. Unless otherwise noted, comparisons in this Appendix of the Annual Housing Survey findings with the housing situation in 1970 are based on the Fall 1970 Components of Inventory Change Survey. The latter survey is preferred over the 1970 Census of Housing for methodological reasons.

In addition to the national sample drawn by the Annual Housing Survey, samples totalling about 400,000 housing units were drawn from 60 Standard Metropolitan Statistical Areas, and surveyed over a cycle of three to four years. Thus, changes in the national housing stock may be followed annually, while changes in 60 Standard Metropolitan Statistical Areas are available at three or four year intervals.

Ability to evaluate the quality of the housing stock in more depth has been achieved by the introduction of new inquiries related to condition and performance. Evaluation of environmental factors, based on the householder's own expression of dissatisfaction, is also possible as a result of the Annual Housing Survey. Comparisons over time make it possible to determine trends in the pursuit of the goal of a decent home and a suitable environment for every American family.

B. Changes in the Stock, 1975 to 1977

By November 1977 the Nation's housing stock had grown to a total of 82.4 million units, an increase of 3.3 million units and 4.2 percent in the two years since the 1975 Annual Housing Survey. Some 98 percent (80.7 million) of the stock consisted of year-round units, which had increased by 3.1 percent over the 1975 figure. The year-round, gross vacancy rate was 6.7 percent (5.4 million units) but many of these vacancies (3.3 million) were either already sold or rented and awaiting occupancy, held for occasional use, or otherwise not available for rent or sale. Thus, there were actually 2.1 million units on the market for rent or sale, and the marketable vacancies represented 2.6 percent of the year-round housing stock. The 1975 marketable vacancies totalled 2.1 million units, or 2.7 percent of the year-round stock.

Highlights of the 1973, 1975, and 1977 housing inventory are presented in Table B-1 below:

Table B-1

Changes in the Housing Stock, 1973 to 1977*
(Number of Units in Millions)

	1973	1975	1977	Change in Units 1973-5	Change in Units 1975-7
Total Units	76.0	79.1	82.4	3.1	3.3
Seasonal Units	0.7	1.5	1.7	0.8	0.2
Year-round Units	75.3	77.6	80.7	2.3	3.1
Occupied	69.3	72.5	75.3	3.2	2.8
By Owners	44.7	46.9	48.8	2.2	1.9
By Renters	24.7	25.7	26.5	1.0	0.8
Vacant	6.0	5.0	5.4	1.0	0.4
For Sale	0.5	0.6	0.6	0.1	--
For Rent	1.5	1.5	1.5	--	--
Other	3.9	2.9	3.3	-1.0	0.4

*Units may not add to totals because of rounding.

The national figures should not be taken as representative of local housing markets, but only as representative of a hypothetical average market. Changes were not uniform regionally, by city size, or by any other logical method of classifying the places in which the housing stock changes from one year to another; it would therefore be unusual for any locality picked at random to follow closely the pattern set by the overall figures. Table B-2 shows the location of the U.S. year-round housing units by region and metropolitan-nonmetropolitan location.

Table B-2

Year-round Housing Units*, 1970-1977
(Number of Units in Millions)

Location	1970	1973	1975	1977	Change in Units 1970-3	1973-5	1975-7	Percent Change 1970-1977
All	67.7	75.3	77.6	80.7	7.6	2.3	3.1	19.2%
By Region:								
Northeast	16.2	17.4	17.5	17.7	1.2	0.1	0.2	9.3
North Central	18.7	20.2	20.6	21.2	1.5	0.4	0.6	13.4
South	20.9	24.0	25.0	26.4	3.1	1.0	1.4	26.3
West	11.9	13.8	14.5	15.4	1.9	0.7	0.9	29.4
By SMSA Location:								
In SMSAs	46.1	51.0	52.6	54.6	4.9	1.6	2.0	18.4
Inside Central Cities	22.6	24.1	24.0	24.8	1.5	0.1	0.8	9.7
Outside Central "	23.5	26.9	28.5	29.8	3.4	1.6	1.3	26.8
Outside SMSAs	21.6	24.3	24.9	26.2	2.7	0.6	1.3	21.3

1. Changes by Tenure and Value or Rent

From November 1975 to 1977 occupied units increased by almost 3.9 percent; owner-occupied units increased by over 4.0 percent and renter-occupied units increased by 3.1 percent. In 1977, owner-occupancy accounted for about 64.8 percent of all occupied units, a slight increase over the 1975 rate of 64.7 percent. In actual numbers there was an increase of 1.9 million owner-occupied units and about 800,000 renter-occupied units, from 1975 to 1977, while year-round vacancies increased by approximately 400,000. Cooperative and condominium owner-occupancy was reported at 1,009,000 in 1977; about 64,000 cooperative and condominium units were vacant and for sale.

A distribution of specified owner-occupied units*, by value, for 1973, 1975, and 1977 discloses the continuing movement of house values towards the higher end of the scale:

Table B-3

Percent of Specified Owner-Occupied Houses* Reporting
Specified Values, 1973, 1975, and 1977

	Percent of Owned Homes			Gross Change	
Value	1973	1975	1977	1973-5	1975-7
Less than $10,000	9.7%	6.6%	3.9%	-3.1%	-2.7%
$10,000 - 14,999	12.2	8.3	4.9	-3.9	-3.4
$15,000 - 19,999	16.2	11.7	7.9	-4.5	-3.8
$20,000 - 24,999	14.5	11.8	8.5	-2.7	-3.3
$25,000 - 34,999	23.5	24.5	20.7	+1.0	-3.8
$35,000 - 49,999	15.8	22.5	26.1	+6.7	+3.6
$50,000 or more	8.1	14.6	28.0	+6.5	+13.4
Median Value	$24,100	$29,500	$36,900	$4,400 (22.4%)	$7,400 (25.1%)

*Limited to 1-family houses on less than 10 acres and no business on property.

As can be readily observed, the proportion of lower-valued homes (less than $25,000) has decreased steadily, while the proportion of homes valued over $35,000 has increased rapidly. These shifts in the distribution of house values are reflected in the median value of owner-occupied housing, which increased 22.4 percent to $29,500 from 1973 to 1975 and 25.1 percent to $36,900 between 1975 and 1977. Although much of this change was due to general inflation in the economy, some was also attributable to changes in the valuation of existing homes and to the relatively higher values of new houses coming on the market for the first time compared to the lower values of older houses that were removed from the inventory. A significant result of this change in the value of the housing stock has been the increased tax base and revenues it has provided to local taxing jurisdictions, and the concomitant increase in tax burden for the occupants.

Tenants reported a similar shift in gross rents:

Table B-4

Percent of Renters Reporting Specified
Monthly Gross Rents, 1973, 1975, and 1977

	Percent of Renters			Gross Change	
Rent	1973	1975	1977	1973-5	1975-7
Less than $70	12.5%	8.8%	6.1%	-3.7%	-2.7%
$70 - $99	16.3	11.2	7.0	-5.1	-4.2
$100 - $149	31.2	26.6	18.9	-4.6	-7.7
$150 - $199	24.5	27.0	25.9	+2.5	-1.1
$200 - $299	12.9	21.2	31.9	+8.3	+10.7
$300 or more	2.6	5.2	10.2	+2.6	+5.0
Median Gross Rent	$133	$156	$184	$23 (17.3%)	$28 (17.9%)

Gross rent is defined as contract rent plus the estimated average monthly cost of utilities if these items are paid in addition to rent. Again it may be seen that rents have trended upward since 1973, with the median rising 17.3 percent to $156 from 1973 to 1975 and 17.9 percent to $184 between 1975 and 1977. Increases in gross rent may be due to several factors: the general inflation in the economy, rising utility costs, and a tightening in some rental markets due to low levels of new construction activity and conversions of some rental units to condominiums.

2. Changes by Type of Structure

The types of units in the housing inventory change over time only as the new structures added to the inventory differ markedly from the old structures removed from the inventory. A two year interval is a very short time for significant changes in structural types to occur in an inventory of 82.4 million units (80.7 million year-round units), as reported by the 1977 Annual Housing Survey. Table B-5 shows the change in the distribution of all year-round housing units, in which the smaller structures (single family, and 2-4 family structures) declined relatively, accounting for 82.4 percent of the housing units in 1970 but only 80.2 percent in 1977. Multi-family structures of five or more housing units, and mobile homes, both increased their share of the total housing inventory from 1970 to 1977.

Table B-5

Changes in Structure Type, 1970 to 1977

Structure Type	Percent of Units 1970	1973	1977	Gross Change 1970 -- 1977
One Family	69.1%	68.1%	67.3%	-1.8%
Two to Four Families	13.3	12.8	12.9	-0.4
Five Families or More	14.5	14.7	15.2	+0.7
Mobile Homes	3.1	4.4	4.6	+1.5

3. Changes in Occupant Characteristics

Median household size declined from 2.7 to fewer than 2.5 persons in the period 1970-1977. All households with from one to five persons increased in number, while households with six or more persons decreased both in absolute and relative numbers. The trend towards smaller household sizes through 1977 emerges clearly in Table B-6, despite the relatively small change in the median number of persons per household.

Table B-6

Households by Size, 1970 to 1977

Number of Persons	Number of Households (millions) 1970	1973	1977	Occupied Hsg. Units 1970 - 1977
One	11.2	13.9	15.8	+4.6
Two	18.8	21.0	23.2	+4.4
Three	10.9	11.9	13.0	+2.1
Four	9.8	10.4	11.9	+2.1
Five	6.2	6.3	6.4	+0.2
Six	3.4	3.1	2.9	-0.5
Seven or more	3.2	2.7	2.1	-1.1
Total*	63.4	69.3	75.3	+11.9

*Numbers may not add to totals because of rounding

From 1970 to the 1977 Annual Housing Survey, the number of single-person households has increased some 41 percent, while multi-person households have increased only 14 percent. Among the households of two or more persons, the predominant type, composed of husband and wife, and without non-related persons in the same housing unit, increased by less than eight percent during this time, while female-headed households (without spouse present) had grown by 38 percent. Other male-headed households of two or more persons increased by more than 54 percent during the 1970-77 period. The increasing importance of "female head" and "other male head" households has been in part responsible for the declining size of the American household, and contributed to the changing character of American housing needs. However, in this respect, the rise in one-person households has been particularly striking.

Table B-7

Changes in Household Composition, 1970 to 1977*

	Number (in millions)			Increase 1970-1977 (millions of units)	
	1970	1973	1977	Number	Percent
All Occupied Units	63.4	69.3	75.3	11.9	18.8%
Two or More Person Households	52.3	55.4	59.5	7.2	13.8
Male head, wife, no non-relatives	43.6	45.5	47.0	3.4	7.8
Other male head	2.4	3.0	3.7	1.3	54.2
Female head	6.3	6.9	8.7	2.4	38.1
One Person Households	11.2	13.9	15.8	4.6	41.1

* Units may not add to totals because of rounding.

Income continued to increase more rapidly for home owners than for renters from 1975 to 1977, as it did from 1973 to 1975. The median annual income of all owner households in 1973 was $11,500; in 1975 it was $13,500, and in 1977, $16,000 -- increases of 17.4 percent from 1973-1975 and 18.5 percent between 1975 and 1977. Renter households in 1975 reported a median income of $7,800, 8.3 percent over the $7,200 in 1973.

By 1977 median renter income was $8,800, an increase of 12.8 percent over the 1975 median.

Although incomes of owners and renters have risen markedly, housing costs have risen even more rapidly for at least part of the population. Rental and income data available from the 1970 Census of Housing indicate that some 39.6 percent of renters were paying one-fourth or more of their incomes for rent. The proportion of renters paying one-fourth or more of income in 1977 was 48.7 percent -- a clear indication of the increasing burden of rents.

Housing cost data for owners first became available in 1974. Data for 1975 and 1977, (as presented in Table B-8) indicate the burden of housing cost is rising for owners too, although at a slower rate than for for renters.

Table B-8

Percent of Renters and Owners Reporting
Extremes of Housing Cost Burden, in Relation to Income
1970 - 1977

	1970	1973	1975	1977
Percent of renters paying 25 percent or more of income for rent	39.6	40.9	44.8	48.7
Percent of owners with mortgages paying 35 percent or more of income for housing costs*	NA	NA	10.1	11.5
Percent of owners without mortgages paying 25 percent or more of income for housing costs*	NA	NA	14.3	16.5

*Sum of payments for real estate taxes, property insurance, utilities, fuel, water, garbage/trash collection, and mortgage.

C. Deficiencies in the Stock, 1977

The Annual Housing Survey provides a wide range of information on the quality of America's housing stock. In this section, preliminary data available for 1977 are compared with earlier reports to examine changes in housing deficiencies; briefly, they are almost all in the direction of better housing.

Twenty-four types of housing deficiencies are enumerated below, including four measures of crowding which reflect the pattern of use rather than a deficiency inherent in the housing itself. Overall, the declining incidence of deficiencies reported since 1973 seems to indicate clearly the improving quality of American housing, as well as the persistence of limited areas of difficulty.

The Annual Housing Survey's published data on deficiencies do not distinguish between deficiencies in previously existing housing, as compared with housing newly added to the inventory. To make this distinction would require much more extensive sampling. Moreover, data on the characteristics of housing in use in 1977 that has been constructed since 1970, reveal that even among these relatively new units there are some shortcomings in plumbing and kitchen facilities (overwhelmingly outside the metro areas), overcrowding, and high percentages of income devoted to housing costs.

To the extent that the construction of new units or the removal of older units slows down, the rate of improvement in the quality of the nation's housing may also slow down. Since there is some cause and effect relationship between housing construction and housing removal--

in both the physical and economic sense -- fluctuations in housing construction are closely allied with the rate at which housing units with deficiencies are eliminated from the housing inventory. However, the upgrading of existing units is also an important factor in the elimination of housing deficiencies.

1. Plumbing

According to the Annual Housing Survey, the number of occupied year-round housing units lacking some or all plumbing facilities declined from 2.1 million units in 1975 to 1.8 million in 1977. This drop reflects both the removal and the improvement of units lacking plumbing facilities. Other plumbing-related inadequacies, beyond the mere presence of facilities are also reported in the Annual Housing Survey. Whether and how often various plumbing facilities broke down in the 90 days preceding the interview has been used to identify inadequate services.

By the standard of two or more breakdowns of at least six hours duration within the specified 90-day period, 500,000 households reported frequent breakdown in their water supply, 300,000 had breakdowns in their sole flush toilet, and 200,000 reported problems with sewage disposal. It must be cautioned that the households with these deficiencies are not additive, since the same household may experience problems with more than one of these plumbing facilities. About 0.5 million households that had complete bathrooms were sharing them with households that did not. The 1.8 million households that lacked some or all plumbing facilities included over 1.6 million who had no complete bathrooms. Most of these units were in rural areas. (See Table B-9.)

Table B-9

Occupied Housing Deficiencies: Plumbing Related
1973 - 1977

Item	Occupied Units (millions)								
	Total*			Owners			Renters		
	1973	1975	1977	1973	1975	1977	1973	1975	1977
Lack some or all plumbing facilities	2.3	2.1	1.8	1.0	0.8	0.7	1.3	1.2	1.1
Bathroom: None or shared	3.0	2.3	2.1	1.3	0.9	0.8	1.7	1.4	1.3
Two or more breakdowns in prior 90 days									
Water supply	0.6	0.4	0.5	0.3	0.2	0.3	0.3	0.2	0.2
Flush toilet[1]	0.4	0.3	0.3	0.2	0.1	0.1	0.2	0.2	0.2
Sewage Disposal[2]	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1

* Units may not add to totals because of rounding

[1] For units with only one toilet

[2] For units with public sewer, septic tank or cesspool as means of sewage disposal

2. Electrical System

Electricity is supplied to almost all year-round, housing units. Although a number of households in 1977 had exposed wiring (one million), lacked electrical outlets in some or all rooms (2.1 million) or were experiencing frequent fuse blowouts (3.3 million), there has been a marked decrease in these inadequancies since 1973. (See Table B-10.)

3. Structural Deficiencies

Some of the six items enumerated under this heading may be more indicative of esthetic flaws (relatively small cracks or holes), than of major structural deficiencies. While the general trend in structural deficiencies is downward, the amount and rate of improvement is much lower than in the case of electrical systems. (See Table B-11).

Table B-10

Housing Deficiencies: Electrical System
1973 - 1977

Item	Occupied Units (millions)								
	Total*			Owners			Renters		
	1973	1975	1977	1973	1975	1977	1973	1975	1977
Some or all wiring exposed	2.7	1.3	1.0	1.6	0.7	0.5	1.2	0.7	0.5
Lacking working electric outlets in some or all rooms	3.7	2.5	2.1	2.1	1.3	1.1	1.6	1.2	1.0
Fuse Blowouts: Two or more in 90 days preceding interview	4.3	3.6	3.3	2.9	2.4	2.2	1.5	1.2	1.1

* Units may not add to totals because of rounding

Table B-11

Housing Deficiencies: Structural
1973 - 1977

Item	Total*			Owners			Renters		
	Occupied Units (millions)								
	1973	1975	1977	1973	1975	1977	1973	1975	1977
Cracks or holes in ceilings or walls	4.2	3.8	3.9	1.4	1.3	1.3	2.8	2.6	2.6
Holes in floor	1.3	1.3	1.3	0.4	0.4	0.3	0.9	0.9	0.9
Loose, broken, or missing steps or railings 1/	1.7	1.9	1.8	0.2	0.2	0.2	1.6	1.7	1.6
Public halls without light fixtures, or broken 2/	1.3	1.3	1.2	0.1	0.1	0.1	1.2	1.2	1.1
Leaking roof	5.3	4.5	4.5	2.8	2.3	2.4	2.5	2.2	2.2
Leaking basement 3/	9.3	8.5	8.1	6.9	6.2	6.0	2.4	2.3	2.1

*Units may not add to totals because of rounding

1/For units in 2 or more unit structures with common stairways

2/For units in 2 or more unit structures with public halls

3/For units reporting basements

4. Kitchen and Heating Deficiencies

In 1977, 1.3 million households lacked or shared a complete kitchen. In addition, among the 74.1 million households with complete kitchen facilities, (that is, a kitchen sink with piped water, refrigerator, and a range or cookstove) over 500,000 reported one or more of these facilities unusable. (See Table B-12.)

Several measures of a housing unit's heating system and its performance are included in the Annual Housing Survey. These data are in some cases highly subjective, reflecting the perceptions of the household, rather than objective standards of heat and humidity. Although variations in the use of additional heat sources and room closings may indicate an inadequate heating system, they may also be caused by other factors such as the severity of the winter, the desire to conserve energy, or the household's effort to minimize expenditures for heat. Four out of five of the heat measures shown in Table B-12 registered an increase in units with the deficiency between 1975 and 1977, after declining from 1973 to 1975. A major cause of the increase in 1977 may be the unusually harsh winter of 1976-1977 for which these data were reported.

5. Occupancy and Use Deficiencies

The items reported here reflect poor design and overcrowding. A bedroom used by three or more persons is a deficiency peculiar to the use made of the housing, rather than a physical defect in the housing unit itself; it is, therefore, a defect which is remedied if the occupants move to a more suitable unit. Another deficiency--bedrooms

Table B-12

Housing Deficiencies: Kitchen and Heating
1973 - 1977

Item	Occupied Units (millions)								
	Total*			Owners			Renters		
	1973	1975	1977	1973	1975	1977	1973	1975	1977
Kitchen incomplete or shared 1/	1.6	1.4	1.3	0.5	0.4	0.4	1.1	1.0	0.9
Lacking specified heating equipment or none 2/	4.9	4.8	5.2	3.0	3.1	3.3	1.9	1.8	1.9
Heating breakdowns: two or more in 90 days 3/	1.5	1.3	1.4	0.6	0.5	0.6	0.9	0.8	0.8
Additional heat sources used 4/	5.5	4.3	5.3	3.1	2.3	3.0	2.5	2.0	2.4
Rooms lacking specified heat source 4/	13.1	12.1	11.9	8.7	8.2	8.1	4.4	3.9	3.8
Rooms closed: lack sufficient heat	3.3	2.5	3.2	2.0	1.5	1.9	1.3	1.0	1.2

* Units may not add to totals because of rounding

1/ All occupied units

2/ Units occupied previous winter and having only room heaters without flue or vent, fireplaces, stoves, or portable heaters, or no heat source.

3/ Units occupied the prior winter and with breakdowns during the previous heating season.

4/ Reporting specified heating equipment: 38.8, 40.3 and 40.6 million owners, 16.0, 14.9, and 15.2 million renters in 1973, 1975, and 1977 respectively, occupied these quarters the preceding winter.

lacking privacy--while reflecting use patterns, arises from the inadequate design of the unit, which utilizes a bedroom as a passage area. A change in the use of the present bedroom--to other than bedroom use--can eliminate this deficiency. A more traditional measure of crowding, defined as more than 1.00 persons per room, has trended steadily downward between 1973 and 1977, from 3.9 to 3.3 million households. More serious crowding (more than 1.50 persons per room), however, declined from 1973 to 1975 but remained unchanged in 1977. (See Table B-13.)

D. Undesirable Neighborhood Conditions

While the quality of the housing stock appears to have improved every year since 1973, the quality of the environment appears to have declined in some respects and improved in others, making for a mixed situation. Of ten neighborhood deficiencies comparably reported in 1973 and 1977, (table B-14) only one - odors - appears to have decreased in incidence. Inadequate street lighting, first reported by 13.8 million households is now mentioned by 18.7 million households; this may in part reflect the energy crunch, and attendant reductions in street lighting. Commercial or industrial uses were reported by 15.5 million households in 1977 compared to 9.3 million in 1973. Street crime, which rose from 9.1 million mentions in 1973 to 13.3 million in 1975 declined to 12.7 million in 1977. Households reporting signs of rats or mice have increased from 6.8 million in 1973 to 10.3 million in 1977. The possibility of some relationships in the reporting of various neighborhood deficiencies is a subject under investigation.

Table B-13

Occupancy and Use Deficiencies

1973--·1977

Item	Occupied Units (millions)								
	Total*			Owners			Renters		
	1973	1975	1977	1973	1975	1977	1973	1975	1977
Bedrooms lacking privacy 1/	6.4	5.6	5.7	4.0	3.4	3.6	2.4	2.1	2.1
Bedrooms used by three or more persons	3.9	3.6	3.5	2.0	1.7	1.5	1.9	1.9	1.9
Crowding									
More than 1.00 persons per room	3.9	3.6	3.3	2.1	1.9	1.6	1.7	1.7	1.6
More than 1.50 persons per room	0.9	0.7	0.7	0.4	0.3	0.3	0.5	0.4	0.4

* Units may not add to totals because of rounding

1/ For units with two or more bedrooms

Table B-14

Neighborhood Deficiencies: Occupants Reporting Specific Undesirable Conditions, 1973-1977

Condition	Number (millions) 1973	1975	1977	Net Change 1973 - 1977
Airplane noise	31.7[1]	11.9	12.7	NA
Street noise		25.1	23.7	NA
Heavy traffic	20.1	21.9	21.9	+1.8
Inadequate street lighting	13.8	18.1	18.7	+4.9
Street repairs needed	9.8	12.4	13.7	+3.9
Commercial or industrial uses	9.3	12.4	15.5	+6.2
Crime	9.1	13.3	12.7	+3.6
Litter	8.5	10.4	12.0	+3.5
Odors	8.0	6.4	6.5	-1.5
Deteriorating housing	6.0	6.9	7.6	+1.6
Abandoned buildings	4.0	5.0	5.2	+1.2
Signs of rats or mice	6.8	7.8	10.3	+3.5

[1] Prior to 1975, airplane noise and street noise were not reported separately.

The proportion of households reporting specific undesirable neighborhood conditions by tenure is shown in Table B-15 for the years 1973, 1975, and 1977. The Annual Housing Survey also collects data on the degree of bothersomeness of these conditions. Table B-16 summarizes the proportion of households reporting each undesirable condition who are bothered to any degree by the conditon as well as those who are so bothered that they wish to move. Households wishing to move are also reported as a percentage of total households.

Households are most bothered by crime (85 percent), litter (83 percent), odors (79 percent), and streets needing repair (76 percent). The proportions of owners and renters bothered are similar for most conditions, with the exceptions of inadequate street lighting which is more bothersome to renters, and nearby commercial or industrial land uses which bother owners more.

The presence of neighborhood crime is most likely to cause households to wish to move (12 percent of households reporting crime), followed by deteriorating housing in the neighborhood (almost 9 percent), and odors (8.1 percent). A higher proportion of renters than owners indicated a desire to move in response to all undesirable conditions (except nearby commercial or industrial land uses), reflecting in part, perhaps, the relatively greater mobility of renters than homeowners.

Table B-15 Percent of Households Reporting Specific Undesirable Neighborhood Conditions

1973, 1975, 1977

	Total			Owners			Renters		
	1973	1975	1977	1973	1975	1977	1973	1975	1977
Condition									
Airplane noise 1/	45.8%	16.5%	16.9%	44.5%	16.8%	17.2%	48.1%	15.7%	16.4%
Street noise 1/		34.8	31.6		32.3	29.3		39.2	35.8
Heavy Traffic	30.0	30.3	29.2	26.4	27.7	26.8	33.6	35.1	33.5
Inadequate street lighting	20.0	25.1	25.0	22.6	28.1	28.0	15.3	19.6	19.5
Street repairs needed	14.1	17.2	18.3	15.2	18.7	19.7	12.3	14.4	15.8
Commercial or industrial uses	13.5	17.1	20.7	10.1	12.8	15.1	19.5	25.1	31.0
Crime	13.2	18.5	17.0	11.1	16.2	15.1	17.2	22.6	20.5
Litter	11.4	14.4	16.0	11.0	13.8	15.2	14.7	15.6	17.6
Odors	11.6	8.9	8.6	11.4	8.8	8.4	11.9	9.1	8.8
Deteriorating housing	8.7	9.5	10.2	7.5	8.5	9.3	10.7	11.4	11.8
Abandoned buildings	5.8	6.9	7.0	4.9	5.8	5.6	7.4	8.9	9.5
Roads impassable	NA	10.7	12.3	NA	11.5	12.9	NA	9.2	11.2
Signs of rats or mice	10.6	11.7	14.8	9.3	10.5	14.1	13.5	14.2	16.4

1/ Prior to 1975, airplane noise and street noise were not reported separately

Table B-16 Proportion of Households Bothered by Specific Neighborhood Conditions and Those Wishing to Move, by Tenure - 1977

	% of Households Reporting Undesirable Condition Who Are Bothered by Condition			% of Households Reporting Condition Who Would Like to Move Because of Condition			% of Total Households Who Would Like to Move Because of Specified Condition		
Condition	Total	Owners	Renters	Total	Owners	Renters	Total	Owners	Renters
Airplane noise	46.8%	46.4%	47.4	2.3%	1.8%	3.1%	0.4%	0.3%	0.5%
Street noise	57.2	58.2	55.6	4.9	4.3	6.0	1.6	1.3	2.1
Heavy traffic	50.9	52.7	48.2	4.3	3.7	5.1	1.2	1.0	1.7
Inadequate street lighting	49.1	45.1	59.9	1.8	1.0	3.8	0.4	0.3	0.7
Street Repairs needed	76.3	77.0	74.6	3.8	3.0	5.5	0.7	0.6	0.9
Commercial or industrial uses	17.2	21.6	13.3	2.0	2.4	1.7	0.4	0.3	0.5
Crime	85.1	85.4	84.6	11.8	7.7	17.3	2.0	1.1	3.5
Litter	83.4	84.3	82.0	6.6	4.6	9.8	1.0	0.7	1.7
Odors	79.2	78.0	81.2	8.1	6.7	10.6	0.7	0.6	0.9
Deteriorating housing	70.5	71.9	68.4	8.5	6.0	12.1	0.9	0.6	1.4
Abandoned building	54.9	56.5	53.2	6.2	4.8	7.7	0.4	0.3	0.7
Roads impassable	71.7	72.3	70.5	4.6	3.5	6.7	0.6	0.5	0.7

E. Neighborhood Services

In 1977, nearly 55 percent of all households considered their neighborhood services to be inadequate in some respect. Included in the Annual Housing Survey list of neighborhood services are public transportation, shopping, schools, police protection, hospitals and/or health clinics, and outdoor recreation facilities (see Tables B-17 and B-18). One additional service, garbage collection, is also included in the tables, although data on the extent to which households are bothered by inadequate garbage collection are not available.

Public transportation was cited by the highest proportion of households (35 percent) as an inadequate neighborhood service, while schools were reported as inadequate by the lowest proportion of households (4 percent). This order is reversed when households reporting inadequate neighborhood services were asked whether the services were so inadequate as to make them want to move. Almost 16 percent of the households dissatisfied with the schools, indicated a desire to move from their present neighborhoods because of inadequate schools. Of the households reporting inadequate public transportation only slightly over one percent wanted to move because of inadequate transportation.

Finally, in an overall evaluation of their neighborhoods, 4.9 percent of the renters and 1.5 percent of the owners considered their neighborhoods to be poor places to live. All things considered, 8.1 percent of renters and 4.1 percent of all owners wanted to move. In absolute terms, this includes some 4.1 million households, about equally divided between owners and renters. Almost 82 percent of all households rated their neighborhoods as good or excellent places to live (see Table B-19).

Table B-17

Neighborhood Services by Tenure, 1975 and 1977

	Percent Reporting Inadequate Service					
	Total		Owners		Renters	
Service	1975	1977	1975	1977	1975	1976
Any Specified Service 1/	49.1	54.9	54.2	58.9	39.7	47.5
Public Transportation	36.1	34.7	42.1	40.5	25.3	24.1
Shopping	13.3	12.9	14.6	13.9	10.8	11.0
Schools	3.6	4.4	3.8	4.8	3.1	3.8
Police Protection	8.4	9.2	8.8	9.3	7.8	8.9
Fire Protection	4.3	NA	5.2	NA	2.7	NA
Hospitals or Health Clinics	11.8	14.7	13.2	15.9	9.4	12.9
Outdoor Recreation	NA	23.4	NA	24.2	NA	21.8
No Garbage Collection Service	14.7	13.9	16.4	15.6	11.5	10.8

Table B-18 - Proportion of Households Bothered by Specific Inadequate Neighborhood Services and Those Wishing to Move, by Tenure - 1977

Service	% of Households Reporting Inadequate Service Who Are Bothered by Inadequacy			% of Households Reporting Inadequate Service Who Would Like to Move			% of Total Households Who Would Like to Move Because of Specified Inadequate Service		
	Total	Owners	Renters	Total	Owners	Renters	Total	Owners	Renters
Any specified service	NA	NA	NA	4.2	2.8	7.5	2.3	1.6	3.5
Public Transportation	30.4	27.2	40.1	1.3	0.7	3.0	0.4	0.3	0.7
Shopping	51.9	46.4	64.8	2.9	1.8	5.6	0.4	0.2	0.6
Schools	82.2	83.3	79.7	15.8	13.4	21.6	0.7	0.6	0.8
Police Protection	80.4	78.3	84.5	7.3	4.2	13.4	0.7	0.4	1.2
Hospitals or health clinics	56.2	55.3	58.4	2.6	1.8	4.6	0.4	0.3	0.6
Outdoor recreation facilities	45.2	41.9	52.0	2.4	1.3	4.8	0.6	0.3	1.0

Table B-19

Neighborhood Deficiencies: Opinion of Neighborhood, 1975 and 1977

	Number of Households (millions)						Percent of Reporting Households					
	Total		Owners		Renters		Total		Owners		Renters	
Opinion	1975	1977	1975	1977	1975	1977	1975	1977	1975	1977	1975	1977
Excellent	25.7	26.2	19.7	20.2	6.0	6.1	35.4	35.0	42.1	41.5	23.4	23.0
Good	33.9	35.1	21.2	22.1	12.7	12.9	46.8	46.9	45.2	45.7	49.5	49.1
Fair	10.8	11.6	5.1	5.5	5.7	6.1	14.9	15.5	10.9	11.3	22.3	23.1
Poor	1.8	2.0	0.7	0.7	1.1	1.3	2.4	2.7	1.4	1.5	4.2	4.9
Not Reported	0.4	0.4	0.2	0.2	0.2	0.2	NA	NA	NA	NA	NA	NA
Poor and want to move	1.3	1.0	0.5	0.3	0.8	0.6	1.7	1.3	1.0	0.7	3.1	2.4
Want to move, all opinions	8.0	4.1	4.0	2.0	4.0	2.1	11.1	5.5	8.6	4.1	15.7	8.1
Reporting	72.2	74.8	46.7	48.5	25.5	26.3						

F. Incidence of Housing and Neighborhood Deficiencies

The quality of America's housing is improving, as indicated by declining rates of incidence of structural and equipment deficiencies; overcrowding, and measures of physical deterioration (such as cracks or holes in walls and ceilings, holes in floors, etc.). Occupied units lacking complete plumbing facilities for example, dropped 49 percent between 1970 and 1977, from 3,511,000 units to 1,805,000 units.

This marked improvement has raised the question of the future usefulness of deficient plumbing and other "disappearing" deficiencies as indicators of American housing quality. It should be emphasized, however, that although the overall national incidence of a problem may be low and declining steadily, the incidence may still be rather high in certain types of places and among certain subgroups of the population. In the case of plumbing deficiencies, for example, the national incidence is only 2.4 percent of all occupied units, while among renters it is 4.2 percent of all occupied units, Among renters living outside of SMSA's, the incidence climbs to 9.9 percent. If renters were stratified by income, age, race or other characteristics, other variations would also become apparent.

Table B-20 summarizes the incidence of selected housing and neighborhood deficiencies by tenure and SMSA location (SMSA central city, SMSA outside of central city, and non-SMSA). As the table reveals, deficiencies tend to occur at a markedly higher rate among renters than owners, and outside of SMSAs, rather than within them. As between the central cities, and the SMSA areas outside the central cities, there is a higher rate of incidence -- in general -- within the central cities, but the difference is usually not nearly so marked as that between owners

Table B-20

Incidence of Selected Housing and Environmental Deficiencies, 1977

	Percent of Occupied Units with Specified Deficiencies								
	Owners				Renters				
		IN SMSAs				In SMSAs			
	All	Central Cities	Outside of Central Cities	Outside of SMSAs	All	Central Cities	Outside of Central Cities	Outside of SMSAs	Overall National Incidence
Lack plumbing	1.4	0.3	0.7	3.0	4.2	2.6	2.0	9.9	2.4
Kitchen facilities none or shared	0.8	0.2	0.3	1.7	3.3	2.8	1.6	6.6	1.7
Over 1.00 persons per room	3.3	3.1	3.0	3.9	6.2	6.6	4.5	7.6	4.4
Open cracks/holes in walls/ceilings	2.6	3.0	2.0	3.1	9.9	11.3	6.9	11.1	5.2
Holes in floors	0.8	0.7	0.6	1.1	3.5	3.7	2.1	5.2	1.8
Exposed electrical wiring	1.0	0.5	0.7	1.6	2.0	1.5	1.2	4.0	1.3
Lack electrical outlets	2.3	1.3	1.1	4.4	3.9	2.6	2.2	8.2	2.9
Water in basement (of units with basements)	25.4	20.7	24.0	31.4	17.3	13.0	20.6	25.6	22.7
Leaking roof	4.8	4.8	4.0	5.9	8.2	7.9	6.7	10.5	6.0
Rats or mice	14.1	9.2	10.3	21.5	16.4	16.7	10.0	24.0	14.8
Undesirable neighborhood conditions	75.1	76.5	75.2	74.0	77.9	80.1	77.0	73.9	76.0
Want to move because of	4.0	6.3	4.1	2.6	8.1	10.3	7.6	4.5	5.5
Neighborhood services inadequate; want to move	1.6	2.3	1.6	1.3	3.5	4.1	3.3	2.5	2.3
Opinion of neighborhood "Poor"	1.5	2.5	1.1	1.3	4.9	7.0	3.3	2.9	2.7

and renters, and between SMSAs and non-SMSA areas. What emerges clearly is that a presumably "disappearing" deficiency (when measured against a national background) may be a persistent problem in certain kinds of places, or among certain parts of the population.

II. Maintenance and Improvement of the National Housing Stock

A. Expenditures for Maintenance and Repair and Construction Improvements

Preservation of existing housing and neighborhoods is aided through the efforts of individual owners, who help prevent the obsolescence of their housing units through maintenance, repairs, and construction improvements.

Data on expenditures for residential additions, alterations, maintenance and repairs, and major replacements are available in the C50 Construction Reports, Residential Alterations and Repairs, prepared quarterly and annually by the Bureau of the Census. Current data are available through the first three quarters of 1979. Table B-21 through B-23 summarize portions of this data. Annual data on units or properties receiving maintenance repairs or improvements are not available in this series.

Total expenditures on maintenance and repair and construction improvements have increased from $28.2 billion in 1977 to $33.2 billion in 1978, a rise of almost 18 percent. Expenditures continued to increase in 1979, totalling $27.3 billion in the first three quarters compared to $25.1 billion in the comparable 1978 period, an increase of 9 percent.

Table B-21

Expenditures for Maintenance and Repair and Construction Improvements By Size of Property and Presence of Owner 1977-1979 (in Millions of Dollars)

				Construction Improvements		
		Total	Maintenance and Repairs	Additions	Alterations	Major Replacements
All Residential Properties						
Annual Data:	1977	28,203	11,344	2,655	8,505	5,699
	1978	33,159	12,909	3,713	8,443	8,094
Quarterly Data:						
1978	1st Qtr	5,984	2,143	620	1,737	1,484
	2nd Qtr	9,358	3,549	1.208	2,495	2,106
	3rd Qtr	9,718	3,970	1,008	2,366	2,374
1979	1st Qtr	7,089	2,571	493	2,435	1,590
	2nd Qtr	9,860	4,152	1,408	2,021	2,279
	3rd Qtr	10,394	4,434	614	2,611	2,735
1-4 Unit Properties, Owner-Occupied						
Annual Data:	1977	20,121	6,223	2,126	7,529	4,243
	1978	22,428	6,980	2,880	6,696	5,872
Quarterly Data:						
1978	1st Qtr	3,631	986	521	1,205	919
	2nd Qtr	6,240	2,216	667	1,776	1,581
	3rd Qtr	6,997	2,156	940	2,118	1,783
1979	1st Qtr	4,806	1,186	477	2,078	1,065
	2nd Qtr	6,570	2,322	963	1,502	1,783
	3rd Qtr	7,658	2,770	508	2,262	2,118
1-4 Unit Properties, Not Owner-Occupied and all 5 or more unit properties						
Annual Data:	1977	8,082	5,121	529	976	1,456
	1978	10,730	5,929	832	1,747	2,222
Quarterly Data:						
1978	1st Qtr	2,354	1,156	100	532	566
	2nd Qtr	3,117	1,333	541	719	524
	3rd Qtr	2,721	1,814	68	248	591
1979	1st Qtr	2,283	1,385	16	357	525
	2nd Qtr	3,288	1,830	444	519	495
	3rd Qtr	2,735	1,664	105	349	617

Of the total expenditures for maintenance and repair and construction improvements each year, slightly over two-thirds have been for owner-occupied 1-4 unit properties, with the remaining third spent for rental properties. (1-4 unit properties not owner-occupied and all five or more unit properties.)

Expenditures for maintenance and repairs represent current costs for the upkeep of the property rather than additional investment in the property. Maintenance and repair expenditures for all residential properties rose almost 14 percent from 1977 to 1978, from $11.3 billion to $12.9 billion. Expenditures during the first three quarters of 1979 totalled almost $11.2 billion, a fifteen percent increase over the comparable period in 1978.

Of the $12.9 billion in expenditures for maintenance and repairs in 1978, approximately 54 percent were spent on 1-4 unit properties in which the owner occupied one of the units, with the remainder spent on one to four unit properties in which the owner did not reside and on all five or more unit properties. The proportion spent on the owner-occupied 1-4 unit properties rose slightly to 56 percent in the first three quarters of 1979.

Expenditures for maintenance and repairs increased over 12 percent to $7.0 billion from 1977 to 1978 on the owner-occupied 1-4 unit properties, and increased almost 16 percent to $5.9 billion on the renter-occupied properties. In the first three quarters of 1979, expenditures continued to rise in both property categories over their 1978 level, increasing 17 percent and 13 percent for the owner and renter occupied properties, respectively.

Of the expenditures in 1978 for maintenance and repairs, approximately 37 percent were for painting. The distribution of the rest of the maintenance dollar was 12 percent for plumbing, 8 percent for roofing, 6 percent for heating or central air conditioning, 5 percent for siding and 34 percent for other items such as electrical work, flooring, walks, porches, doors, windows, etc.

Construction improvements include the types of expenditures which are considered capital investment in the property and are reflected in the new construction outlay figures published monthly by the Census Bureau. Construction improvements in this analysis include additions to residential structures, alterations within residential structures, and major replacements. Construction improvements account for about 60 percent of the annual total expenditures for upkeep and improvement of the existing residential stock. In the report prepared by the Bureau of the Census, another category is also included, additions and alterations outside the residential structures. This category has been omitted since it is comprised of such things as adding fences, swimming pools, barbeques, patios, walks and driveways, and other similar structures which do not necessarily preserve the residential structure itself, although they certainly augment the amenities associated with the property.

Additions to residential structures include actual enlargement of the structure by addition of a wing, room, porch, attached garage, basement, etc. Expenditures on additions jumped 40 percent in 1978 to $3.7 billion from the 1977 level of $2.7 billion. Expenditures during the first three quarters of 1979 totaled about $2.5 billion, or decrease of 11 percent from the same period in 1978.

Of the expenditures for additions in 1978 approximately 78 percent were for one to four unit properties with the owner present. The remaining 22 percent were for additions to one to four unit properties without the owner present and all five or more unit properties.

Alterations within residential structures include changes or improvements made within or on the structure ranging from minor changes to major remodeling. Expenditures for alterations decreased slightly in 1978, to $8.4 billion. Expenditures during the first three quarters of 1979 totalled $7.1 billion, a 7 percent increase from the same period in 1978. (See Table B-21).

Of the $8.4 billion spent on alterations in 1978, about 79 percent was for one to four unit properties with the owner present, and 21 percent was for one to four unit properties with the owner not present and all five or more unit properties.

Major replacements as construction improvements are distinguished from repair replacements by the specification of a limited list of large individual expenditures, which generally involve the replacement of an entire large piece of equipment such as complete furnace, water heater, bathroom fixtures, entire roof or siding, complete walks or driveway and similar items. The distinction between major replacements and additions and alterations is that the replacements generally are not innovations.

Major replacements increased 42 percent in 1978 to $8.1 billion from $5.7 billion in 1977. Major replacements during the first three quarters of 1979 totalled $6.6 billion, an 11 percent increase over the comparable 1978 period. (See Table B-21).

Of the $8.1 billion spent on major replacements in 1978, approximately 73 percent was for one to four unit properties with the owner present. The remaining 27 percent was for one to four unit properties without the owner present and all five or more unit properties.

B. Expenditures by Whether Work Performed by Owner or Contractor

Expenditures for maintenance and repairs and construction improvements for single-family, owner-occupied properties are reported in Table B-22 by whether the work was performed by a contractor, by the owner of the property, or by a combination of the two. Expenditures in this section cannot be compared to expenditures in Section II-A of this appendix, since these figures include construction improvements outside residential structures which were omitted in the previous Section, and also are limited to jobs of $25 or more.

Expenditures increased 12 percent to $23.6 billion in 1978 over the 1977 level of $21.0 billion. During the first three quarters of 1979, expenditures totalled $20.8 billion, a 17 percent increase over the same period in 1978.

Over the period from 1977-1979 there has been little fluctuation in the percentage of total expenditures for work done by contractors, owners, or both. In the range of 66-69 percent of the expenditures have been for work performed entirely by contractors, 20-22 percent for work by owners alone and 10-12 percent for work by a combination of owners and contractors.

Table B-22

One Housing Unit Owner Occupied Properties Expenditures by Work Done by Contractor, Owner, or Combination of Contractor & Owner, for Jobs of $25 or More 1977 - 1979 (amounts in millions of dollars)

			Job Done by Contractor			
		Total	Supplies own Materials	Owner Supplies Materials	Job Done by Owner	Job Done by Owner/ Contractor Combined
Annually:	1977	21,043	13,076	901	4,646	2,420
	1978	23,557	15,495	790	4,854	2,418
Quarterly:						
1977:	1st 3 Qtrs	16,368	10,231	737	3,496	1,904
1978:	1st 3 Qtrs	17,838	11,635	647	3,730	1,826
1979:	1st 3 Qtrs	20,820	13,389	972	4,149	2,310

C. Average Size of Expenditure per Property in 1-4 Unit Properties and Percent Distribution of Properties by Size of Expenditures

Average expenditures per property have increased since 1977 rising from $161 to $178 in 1978 and $193 in 1979. Higher averages in the last two years reflect, in part, a higher proportion of expenditures of $1,000 or more. Third quarter data are used for all years (see Table B-23).

Average expenditures for properties with expenditures have also increased from $423 in 1977 to $471 in 1978, but declined slightly to $468 in 1979. Again, the high in 1978 was due at least in part to an increase in properties with expenditures of $1,000 or more.

From 1977-1979 between 38% and 41% of all properties had expenditures in the third quarter of each year.

A percentage distribution of properties by size of expenditures for properties with expenditures is also shown in Table B-23. In the third quarters of 1977, 1978, and 1979, 45%, 48% and 41%, respectively, of all expenditures were less than $100. In 1977, 21 percent of third quarter expenditures were $500 or more, compared to 20 percent in 1978 and 22 percent in 1979.

The median expenditure for properties with expenditures was $129 in the third quarter of 1977, dropped to $119 in 1978 and rose to $153 in 1979.

Table B-23

Expenditures on Residential 1-4 Unit Properties with 1 Unit Owner Occupied for Maintenance and Repairs and Construction Improvements: by Average Amount Per Property and Percent Distribution of Properties by Size of Expenditure 1977-1979, Third Quarter Data

Third Quarter	1977	1978	1979
Expenditures per Property (in dollars)			
Average per property	$161	$178	$193
Average per property with expenditures	$423	$471	$468
Properties by Presence of Expenditures (percent Distribution)			
All properties	100%	100%	100%
With no expenditures	62%	62%	59%
With expenditures	38%	38%	41%
Properties by Size of Expenditures for properties with Expenditures Percent Distribution, Current Dollars			
Less than $10	5	5	5
$ 10 - $ 24	11	11	7
$ 25 - $ 49	13	16	12
$ 50 - $ 99	16	16	17
$100 - $199	16	16	17
$200 - $499	18	16	20
$500 - $999	11	9	10
$1000- or more	10	11	12
Median (dollars)	$129	$119	$153

D. Maintenance and Repair - Annual Housing Survey Data

Another source of information on efforts to preserve the existing housing stock is the Annual Housing Survey, which reports the number of improvements or repairs to specified owner-occupied units [1] that have occurred during the past 12 months as well as those that are planned during the next 12 months.

In 1977, there were 38,754,000 specified owner-occupied properties, of which 13,911,000 received no improvements and 24,332,000 received some type or types of alterations and repairs. The remaining 511,000 properties were not reported. About 14,540,000 of the improved properties had additions, alterations, replacements or repairs costing less than $200, while 14,413,000 had improvements costing over $200. Of the units with the expenditures under $200, 242,000 had additions, 3,314,000 had alterations, 2,810,000 had replacements and 11,127,000 had repairs. These components do not add to the totals since more than one improvement may have been made to the same property.

Of the units with expenditures over $200, 1,975,000 had additions, 6,166,000 had alterations, 5,588,000 had replacements and 6,568,000 had repairs.

The Annual Housing Survey also collects data on plans for improvements during the next 12 months. About 19,196,000 owners reported no planned improvement in 1978, while 16,591,000 did plan some type of improvements. Of those planning improvements, 3,988,000 estimated a cost of less than $200, 11,805,000 felt the cost would be greater than $200, and 798,000 did not estimate the cost.

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[1] One-family homes on less than 10 acres and no business on property.

III. Federal Programs to Preserve Existing Housing and Neighborhoods

A. Subsidy Programs Using the Existing Housing Stock

Federal subsidy programs are employed to make use of the existing housing stock, in addition to encouraging new production. In Appendix A, Section III, subsidies used for the rehabilitation of existing units were discussed. In fiscal years 1978 through 1981, it is estimated that 143,466 units will have been rehabilitated, including 48,626 units in one to four unit structures, and 94,840 units in multifamily structures.

Rehabilitation of deteriorated structures in declining neighborhoods requires widespread community and private sector support and enthusiasm. Neighborhood conditions, amenities, sociological and other human resources, and the availability of publicly provided services are crucial to successful rehabilitation. Each community must carefully dovetail rehabilitation activities with community development and housing assistance plans and programs formulated and implemented under Title I of the Housing and Community Development Act of 1977.

In addition to rehabilitation, Federal subsidies have also been employed to make use of existing adequate housing. Even though subsidizing such housing does not help to meet a production target, it does help to bring decent homes in sound neighborhoods within the means of many who otherwise could not afford them and thus satisfies the 1949 housing goal of a "decent home and a suitable living environment." Also, such attention to and positive use of older existing housing often averts impending deterioration by providing adequate rental income to support maintenance programs. Thus the useful life of these older, sound units may be extended. In Appendix A, Section IV, it is estimated that 523,208 existing units will have been subsidized in fiscal years 1978 through 1981, 365,955 of them through the Section 8 program.

B. Programs for Revitalization of HUD Subsidized Projects

Recent economic conditions, particularly energy costs, have jeopardized the financial soundness and living conditions of some HUD subsidized projects. Operating expenses have been rising more rapidly than project incomes from rents. Often such projects, particularly in inner city areas, face serious problems of deterioration. Many units have been abandoned and boarded up, victims of vandalism and crime. This section describes efforts underway to deal with these problems.

1. Public Housing Urban Initiatives Program

The purpose of the Public Housing Urban Initiatives program (PHUIP) is to make a prompt and substantial improvement in conditions in major "distressed" public housing complexes in the country's major urban areas to stimulate better management in public housing agencies (PHAs).

a. Targeted Rehabilitation

The Targeted Rehabilitation component provides special funding through the HUD Low-Income Public Housing modernization program to PHAs to finance capital improvements in PHA-owned low-income housing projects, to upgrade living conditions, correct physical deficiencies and achieve operating efficiency and economy. The Modernization program as applied to PHUIP, provides assistance to selected large PHAs with 2,500 or more units whose substantial physical rehabilitation needs cannot be met through the normal allocation of modernization funds.

The Management Assistance provision within the Targeted Rehabilitation component provides special funding of operating subsidy funds to improve the management capability of the PHA by upgrading management and financial systems.

b. Project Based Budgeting

This component provides money from HUD operating subsidy funds to enable selected PHAs (with 1,250 or more PHA low-income housing units) to develop and implement a project-based budgeting and accounting system--as steps toward accountable management on a project by project basis.

c. Anti-Crime

The Anti-Crime component involves special funding provided by HUD, the Department of Justice (Law Enforcement Assistance Administration), the Department of Labor and other Federal agencies to permit a coordinated effort to address the security problems of public housing projects through a mix of physical and hardware design changes, social services, tenant employment (especially youth), tenant services, and improved PHA management, and by strengthening links with local government law enforcement agencies.

d. Urban Partnership

The Urban Partnership component provides funding for innovative efforts by cities and PHAs to work more cooperatively to improve services and facilities in the areas in and around public housing projects.

e. Funding

Physical rehabilitation work was financed from special set-asides of FY 1978 and FY 1979 modernization funds, and management assistance activities from a special allocation of FY 1978 operating subsidy funds. Sixty-seven public housing agencies are sharing $264 million dollars for management assistance/targeted rehabilitation efforts, $5 million of which was designated specifically for use by selected PHAs to install or modernize a project-based budgeting system.

Initial funding for the interagency Anti-Crime component is $30.25 million; the amount provided by HUD is $20 million in Modernization program loan authority and $2.25 million from Community Development Block Grant discretionary funds. The Department of Labor's Youth Community Conservation and Improvements Project (YCCIP) is providing $8 million. The Law Enforcement Assistance Administration is providing $340,000 in Victim/Witness funds and $1 million in Juvenile Justice Program funds. The Alcohol, Drug Abuse and Mental Health Administration (HEW) is providing $500,000 for the program.

A $2.5 million Urban Partnership component is designed to encourage city governments to work more cooperatively with public housing agencies in such ventures as developing neighborhood and commmercial revitalization activities in project areas.

The Public Housing Urban Initiatives program is a one-time funding cycle with an anticipated 30-month life span.

2. Modernization Program in Public Housing

The Low-Income Public Housing Modernization program provides funds to public housing agencies (PHAs) to finance capital improvements to PHA-owned, low-income housing projects to upgrade living conditions, correct physical deficiencies, and achieve operating efficiency and economy.

During Fiscal Year 1978 HUD made available $42.5 million in contract authority which will finance approximately $494 million in capital improvements. This funding involved approximately 1,585 PHAs affecting 5,847 projects and 666,000 dwelling units.

Priority for funding was given to the following:

- Work required to comply with federal, state and local laws relating to health and safety, such as gas pipeline safety, lead-based paint removal, air pollution control, and fire protection.
- Work needed to preserve the basic integrity of structure and systems.
- Work which will result in an immediate and demonstrable cost savings to PHAs.
- Work which will result in energy conservation, such as installation of storm doors and windows, piping insulation and individual checkmeters.

A major program change in 1978 provided for amortizing modernization loans over a standard 20 year period. This simplifies financial management of the program and removes technical impediments to the modernization of older projects. When the remaining term of the Annual Contributions Contract is less than 20 years, a new modernization program will now result in extension of contract coverage.

C. Property Disposition Policies

One of the more important problems faced by the Department of Housing and Urban Development continues to be the disposition of acquired single family properties. In several cities, the number of properties owned by HUD results in its disposition policies having a significant impact on neighborhood preservation.

The single family inventory, which peaked at over 78,000 properties on May 31, 1974, was reduced for each of the 40 subsequent months. FY 1976 saw the largest reduction of any year in the history of this program when the inventory was reduced by more than 20,300 properties to 45,151 on hand as of June 30, 1976. The inventory continued to decline through

FY's 1977, 1978 and 1979 and is expected to be further reduced, in 1980, to below 20,000 properties. Despite these decreases, the inventory continues to be concentrated in a relatively few localities, with the five largest inventory offices having 56 percent of the total inventory.

At present, one of the most intransigent problems facing the program is the high rate of occupied conveyances, their management and ultimate sale. A new proposed rule governing occupied conveyance was published in the Federal Register on April 20, 1979. It is anticipated that the resulting final rule and the implementing handbook instructions will reduce, in FYs 1980 and 1981, the number of acquired home properties conveyed occupied.

Current activities underway to maintain a high level of sales of acquired properties include:

1. Offering single family properties for sale in such a manner as to ensure the maximum return to the mortgage insurance funds consistent with the need to preserve and maintain urban residential areas and communities.
2. Making sales offerings through use of formal Planned Program Approaches so that disposition efforts will be on a well organized and planned basis.
3. Emphasis on programming properties for repair.

4. Increasing the number of direct sales of HUD-owned properties to tenants and repurchases by former mortgagors, utilizing a lease with option to buy program when appropriate.
5. Enhancing sales by improving techniques for the management of properties including the utilization of a home project management concept and an increased involvement of community based organizations such as Neighborhood Housing Services.
6. Making more extensive use of the Section 245 Graduated Payment Mortgage program in areas where appropriate.
7. Accelerating the sale of vacant lots.
8. Transfer of properties to localities under the Urban Homesteading program.
9. Promotion of minority business enterprise participation in both the repair, management and sale of acquired properties through an affirmative minority goals and marketing program.

D. Non-Subsidized Program for Home Improvement

The FHA Title I Home Improvement program insures loans made by financial institutions to homeowners for home improvements. At the end of December 1978, approximately 10,000 financial institutions were active in this program. During calendar year 1978, 349,209 loans were made, up 6 percent from 1977. The number of loans made in 1979 was 2 percent less than for 1978. The estimated total net proceeds of outstanding loans at the end of calendar year 1978 was approximately $3.4 billion.

The Housing and Community Development Act of 1977 provides the Secretary with discretion in setting the interest rate, which is presently 14 percent. The maximum dollar amount for a loan to improve a one-family house is $15,000; the maximum term of the loan is 15 years. Mobile homes are now eligible for insurance under Title I.

E. Programs for Rehabilitation, Conservation, and Neighborhood Preservation

Activities to support the efforts of localities to preserve and improve neighborhoods fall into four main categories: (1) rehabilitation under the Community Development Block Grant (CDBG) Program, (2) activities under the rehabilitation loan program authorized by Section 312, (3) activities under the Urban Homesteading Program, and (4) support of neighborhood development organizations.

1. Community Development Block Grant Program

The Community Development Block Grant legislation lists eight specific national objectives. Though many of the objectives overlap in intent, and many of the activities undertaken by cities to achieve their goals affect several objectives, the general pattern for the past five program years reveals the greatest concentration of funds in activities related to the elimination of slums and blight, followed by land resource use, conservation and expansion of the housing stock, economic development, improvement of community services, elimination of detrimental conditions, and historic preservation.

Most changes in funding levels across program years have been relatively small. The most noticeable changes in recent program years reflect a decrease of about 6 percent in the proportion of funds allocated for the elimination of slums and blight (42.4 percent to 36.8 percent) and a significant increase in funds allocated for the conservation and expansion of the housing stock (15.6 percent to 31.0 percent).

Among the various strategies pursued, neighborhood preservation has grown steadily over the life of the CDBG program to the point that it now represents the dominant strategy. Between 1975 and 1979, the percentage of dollars devoted to this strategy has almost doubled. In 1975, the initial year of the CDBG program, entitlement cities budgeted 21.3 percent of their project funds to preservation. By 1979, the fifth year of the program, the percentage increased to 40.0.

Most of the remaining CDBG project resources go to neighborhood development, general development, and economic development. Taken together these strategies account for about 50 percent of all 1979 project funds, with each garnering about 16 percent.

The individual CDBG activity that now accounts for the greatest investment is housing rehabilitation. As of 1979, entitlement cities were budgeting over 30 percent to rehabilitation. Since the beginning of the program, approximately $2.5 billion of CDBG funds have been allocated by recipients to rehabilitation. If the national average of $4,000 per unit (CDBG rehabilitation costs) were applied to the total rehabilitation dollars, the gross number of units rehabilitated by CDBG funds would approach approximately 613,000.

There are several reasons which explain the emergence of neighborhood preservation and housing rehabilitation as the dominant themes in the

CDBG program. First, as a result of both the successes and problems with urban renewal, cities were searching for new avenues. Second, the citywide citizen participation requirements of CDBG made it necessary for cities to adopt strategies and activities that could be used in a variety of city areas. Third, cities wanted a strategy that would conserve existing resources.

2. Section 312 Rehabilitation Loans

Section 312 of the Housing Act of 1964, as amended, provides for direct, low-interest, Federal loans to property owners and tenants for the rehabilitation of residential, nonresidential, and mixed-use properties. The loans are made at 3 percent interest and have a 20-year maximum term. The maximum loan amount for residential properties is $27,000 per dwelling unit and the maximum loan amount is $100,000 per property for nonresidential loans. Priority is given to applications from low- and moderate-income persons.

The purpose of the residential loans made under Section 312 is to enable low- and moderate-income persons to improve their homes, to bring the houses up to local standards and to promote property rehabilitation in designated areas of the community. Localities administer the Section 312 program to achieve their local revitalization objectives in these designated areas.

Initially loans under Section 312 were a part of a locality's urban renewal or concentrated code enforcement program aimed at bringing properties up to local code requirements. Since the enactment of the Housing and Community Development Act of 1974, a major use of Section 312 loans has been as a complement to local property rehabilitation programs funded by the Community Development Block Grant programs.

During fiscal year 1979, $288 million was available by apportionment for Section 312 loans. Of that amount, $234 million was reserved during the year with obligations of nearly $225 million representing 11,429 loans and approximately 15,425 dwelling units.

From the beginning of the program (1965) a total of $546,357,000 in loans funds had been reserved as of September 30, 1978. This represents approximately 63,933 loans and about 95,900 dwelling units.

3. Urban Homesteading Program

The Urban Homesteading Program offers another means of encouraging localities to preserve urban neighborhoods. This program, begun in 1975 as a demonstration, became an operating program when regulations were published in December 1978. It is administered by the Urban Homesteading Division in the Office of Community Planning and Development (CPD).

In this program, HUD provides properties to units of local government whose urban homesteading plans have been approved by the Department. The cities subsequently select homesteaders and convey the properties, without substantial compensation, to these homesteaders with certain conditions which include that the homesteader must:

- Bring the property to minimum health and safety standards prior to occupancy;
- After occupancy, bring the property to local code standards within 18 months; and
- Occupy the property for a minimum of three years.

At the end of this three-year period, if all conditions are met, the homesteader gets title to the property. Thus, the urban homesteading program allows families or individuals who are in need of housing to acquire homes for basically the cost of rehabilitation. The use of self-help ("sweat equity") is encouraged.

The Urban Homesteading Program, authorized by Section 810 of the Housing and Community Development Act of 1974, permits the Secretary of the Department of Housing and Urban Development (HUD) to transfer - without payment - one- to four-unit HUD-owned properties to units of local government, states or their designated public agencies, for use in urban homesteading programs.

When the demonstration phase began, twenty-six cities were selected from the "First-Round" group of applicants; following encouraging results in these localities, another sixteen were selected in 1977 from a "Second-Round" group. From the outset, Section 312 Rehabilitation Loan funds were made available to participating localities to help support rehabilitation costs. In addition, participation of local financial institutions and complementary use of other HUD funds were encouraged. The entire "Demonstration" group of thirty-nine localities used $29.9 million in Section 810 funds and $30 million in Section 312 loans.

As of September 1970, an additional thirty-three localities had entered the program, bringing the total to seventy-two. Several of the participating localities are counties. 3,542 properties had been conveyed to homesteaders in these localities. In addition to using HUD-owned properties for homesteading, localities are encouraged to homestead locally-owned properties. HUD will continue to provide Section 312 low interest rehabilitation loan funds to communities in support of their homesteading efforts. The Section 312 loans can be made to recipients of HUD-owned properties, locally-owned properties and/or other eligible residents of the homesteading program area.

For Fiscal Year 1980, $19,964,000 in Section 312 Rehabilitation Loan funds have been allocated to the Urban Homesteading Program, and $12,525,000 in Section 810 funds. The related program target is the transfer of approximately 1,500 properties.

Section 106 of the Housing and Community Development Amendments of December 1979 authorized the use of Section 810 funds to transfer propertie from the Veterans Administration and the Farmers Home Administration of the Department of Agriculture to local homestead programs.

4. Housing Assistance Plans

The 1977 Housing and Community Development Act strengthened the coordination requirements for implementation of the Community Development Block Grant Program and the Housing Assistance Programs. The primary mechanism to accomplish this objective is the Housing Assistance Plan (HAP) which is a precondition for approval of an entitlement or a discretionary Community Development Block Grant. The HAP includes the locality's own perceptions of its housing conditions, the needs for housing assistance among its lower income households, its goals to obtain housing assistance to meet these needs from federal, state and local resources, as well as indicating where such housing is to be located. HUD is directed to deliver its housing assistance resources to communities according to the preferences and strategies expressed in their HAP's. This includes providing the assistance in proportion to the local needs for elderly, small family and large family housing and according to the HAP development method preferences for new, rehabilitated or existing units.

Summaries of the HAP's of CDBG entitled recipients cover a total available housing stock of 37.5 million units. The communities report 7.8 million lower income families and elderly persons in need of housing assistance roughly equivalent to 21 percent of all their households. Goals are established to assist 1.6 million of the families within three years, a full 21 percent of total need. There is a significant amount of reliance on rehabilitation as a strategy to achieve their goals. About 4.8 million units are reported as suitable for rehabilitation of which cities plan to rehabilitate nearly 500 thousand. The HAP's also show efforts by communities to achieve spatial deconcentration of low-income families. In particular, urban counties indicate that 16 percent of their low-income housing needs are due to families expected to reside in these communities as a result of existing or planned employment opportunities. The fiscal year 1978 goal for lower income housing assistance was to assist 622,000 households, of which 242,000 involved the rehabilitation of existing units.

The Assistant Secretary for Housing has established procedures to allocate funds to communities on the basis of approved HAP's. If proposals are submitted for funding which are inconsistent with the HAP, the community has the right to veto such proposals. Conversely, if a community refuses to accept assisted housing consistent with the HAP it submitted to HUD, and makes no progress toward meeting its housing goals, this is grounds for the Secretary to disapprove its Community Development Block Grant.

F. Community Conservation Research

Community Conservation Research examines neighborhood change and designs and tests intervention techniques to stabilize and preserve neighborhoods. This work broadens understanding of the causes, processes and consequences of neighborhod change. It has the objective of developing appropriate and effective public policies for neighborhood stabilization. Among the priority questions are: (1) what factors lead to spontaneous reinvestment in urban neighborhoods; (2) what is the impact of demographic changes in the population, and the relationship of new suburban construction to the stability of inner-city neighborhoods; (3) what are the effects of reinvestment on the displacement of resident population; (4) what level and intensity of public programs are required to stabilize declining areas; and, (5) what is the leveraging potential of various forms of government assistance to stimulate matching private investment.

G. Neighborhood Development Organizations

The HUD Office of Neighborhood Development was created in 1977 to develop programs "to increase the capacity of neighborhood organizations to plan and participate in neighborhood revitalization activities." Resources of $5,000,000 from the 1978 Community Development Block Grant (CDBG) Discretionary Fund and $1,000,000 from 1978 HUD research funds were made available to identify and meet the capacity-building needs of neighborhood organizations.

Neighborhood organizations, in order to fully participate in neighborhood revitalization activities, require a minimum of three resources:

- direct funding (particularly for those organizations which have a capability to plan and implement revitalization projects);
- training/technical assistance (particularly for those organizations which attempt to achieve a development capability as well as development organizations which grow as their projects increase);
- information assistance (particularly for those organizations which are newly formed, advocacy-oriented, or seeking enough information to determine other technical assistance and funding needs).

The total of $6,000,000 was used to meet the above needs in the following ways:

1. Direct Funding:

- Contracts were awarded to 21 neighborhood development organizations to develop specific local community development projects. Each organization also provided technical assistance related to packaging development projects to two other organizations. Therefore, 63 organizations were directly supported by this effort which totalled $2.5 million:

Under HUD's interagency agreement with the Department of Labor's Youth Community Conservation Improvement Project (YCCIP), DOL transferred over $8,000,000 to HUD to fund, support and evaluate 10 neighborhood development organizations which utilize CETA/YCCIP resources to employ neighborhood youth into the organizations' development and rehabilitation projects; Four neighborhood rehabilitation demonstration projects were supported with $350,000 in funding, whereby a neighboor-based-non-profit organization, in conjunction with the local government, would implement rehab programs which utilize self-help and sweat-equity strategies and which preserve housing for low income neighborhood residents.

2. Training and Technical Assistance:

Increased participation of neighborhood and minority groups in HUD's Community Development Program was sought through contracts with five national civil rights organizations, eleven national neighborhood and minority coalitions and three regional centers. The contracts provide technical assistance and information services to approximately 5,000 non-profit organizations and local government officials. The organizations prepare guidebooks and training manuals for recipients of technical assistance, and sponsor workshops and conferences, and are becoming recognized as technical assistance resource providers;

Training contracts were awarded to provide organizational development services to neighborhood organizations including: management assistance, financial administration and planning, and resource mobilization. The training and technical assistance initiatives totalled nearly $3,000,000.

Information Assistance: Based on an information needs assessment of neighborhood organizations to determine the types of written materials which would be most useful, technical handbooks are being prepared on such topics as self-help activities, neighborhod commercial revitalization, neighborhood planning, and fund-raising. A Neighborhood Information Sharing Exchange (NISE) was created to enable neighborhood organizations to exchange know-how with each other on a variety of activities. ALERT memos on HUD and other federal programs which may be of interest to neighborhood organizations are prepared on a regular basis.

The new Neighborhood Self-Help Development program, with $15 million in appropriations for FY 1979 and FY 1980, will assist neighborhood organizations, through grants and other forms of assistance, to increase their capacity to effectively plan, finance, package and manage various housing, community and economic development projects which result in the revitalization of low and moderate income neighborhoods and which directly benefit the residents of those neighborhoods. The intent of the program is to encourage and support such programs which are identified and developed by neighborhood organizations, which are in the best position to determine those projects most appropriate to satisfy their neighborhood revitalization needs. The program will also provide assistance to neighborhood organizations to work with the public and private sectors to prepare and implement projects. Certification by the unit of general local government is required for each project being proposed by neighborhood organizations.

H. Farmers Home Administration Repair and Rehabilitation of Existing Housing Stock

Farmers Home Administration (FmHA) has a number of housing programs that can be used to finance repair and rehabilitation of existing housing. The Section 502 rural housing loan (home ownership) and Section 504 very low income loan and grant repair programs are regularly used for this purpose. The Section 515 rural rental housing loan program is new construction oriented and only occassionally used to acquire and rehabilitate existing stock.

Section 502 loans are made to low and moderate income families who are unable to obtain credit elsewhere. The loans bear a market rate, but may be subsidized to as low as one percent, and are amortized over a period of up to 33 years. They may be used to build, purchase, enlarge, repair, and rehabilitate housing, purchase a minimum adequate site and refinance debts under limited circumstances. 502 finance housing must meet minimum property standards.

Section 504 loans are extended to those with incomes too low to qualify for a 502 loan and are payable in up to 20 years at one percent interest. The loans are used to eliminate health and safety hazards, and the dwellings need not necessarily meet minimum property standards. The limit for combination of loans and grants of $5,000 was increased to $7,500 by the Housing and Community Development Amendments of 1979.

Section 504 grants are presently only available to the elderly, and are so restricted by appropriations legislation. They are used to supplement loan carrying ability. The revised legislation permits a combination of loan and grant to total $7,500, but grants may not exceed $5,000.

Table B-24 shows the number of units affected and the dollar amounts involved in these programs in FY 1979.

A proposed new Section 530 will permit housing authorities and other public agencies or organization to purchase and rehabilitate deteriorating or substandard housing as a means for maintaining neighborhoods in rural towns and communities, and reselling such housing to low and moderate income purchasers eligible for loans under Section 502 of this title.

Table B-24
FY 1979 Use for Repair and Rehabilitation

Program	Units	Non-Repair Portion of Loans	Amount of Loans for Repairs
Section 502			
Purchase/w minor repair	7,960	$205,119,000	$10,752,000
Purchase/w rehab	10,092	252,714,000	19,493,000
Repair only	1,463	—	13,818,000
Rehab only	2,033	—	18,904,000
Refinance/w repair	100	1,866,000	388,000
Refinance/w rehab	115	1,736,000	736,000
502 TOTAL	21,763	$461,435,000	$64,041,000
Section 504 loans	5,651	—	$14,710,250
Section 504 grants	6,842	—	18,999,980
504 TOTAL	12,493	—	$33,710,230
Section 515 loans			
Purchase & rehab	Not available	$1,397,000	Includes repair & purcha
Rehab only	227	—	$5,255,000
TOTALS	34,483	$462,832,000	$103,006,230

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I. Federal Home Loan Bank Board Community Investment Fund

The President and the Federal Home Loan Bank Board announced the establishment of the five-year $10 billion Community Investment Fund (CIF) on June 8, 1978, as part of the goal to fully utilize existing thrift industry leadership, capacities, and resources in meeting community investment and development challenges while avoiding unsound loans.

The Fund serves as a financial catalyst to encourage savings and loan associations to increase their lending in older communities, both large and small. It is distributed locally by the 12 District Federal Home Loan Banks in the form of advances, using no tax dollars. Money for the Fund is raised in the private financial markets using the normal borrowing procedures of the Federal Home Loan Bank System. Interest rates on these specially priced CIF advances are ½ of one percent below the estimated cost of funds to the Bank System of issuing new consolidated obligations of comparable maturities. The entire cost of the Fund is absorbed by the 12 Federal Home Loan Banks.

The Fund will assist member institutions which make special loans to preserve or revitalize older urban and rural communities. In the first eight months of operation, members receiving these specially priced advances demonstrated an existing and continuing commitment to affirmative lending in older communities and targeted lending to low-and moderate-income residents.

Each District Federal Home Loan Bank administers the program under broad guidelines established by the Bank Board. In order to be eligible, each member institution's lending and investment strategies are evaluated for the following characteristics: (1) a qualified urban or community lending specialist or team devoting a substantial amount of time to innovative programs; (2) an active loan marketing program targeted to mature communities with reasonable emphasis on low- to moderate-cost housing; (3) a financial counseling program for assisting low- to moderate-income homebuyers; and (4) a demonstrated commitment to participate in government or privately sponsored programs aimed at community preservation or revitalization.

As of December 1979, some 910 associations had outstanding advances and commitments totalling $3,053 billion, compared to the 422 member associations who had received $1.26 billion as of February 1979.

Nearly one-third of all associations drawing advances from the Federal Home Loan Bank System also use the CIF. This number also represents 21.4% of the total 4,245 associations that comprise the Bank System.

The predominant users of the CIF are associations whose assets are $500 million and under (or 87%). Specifically, these can be broken down so that of the 910 CIF participants:

419 associations have assets of under $100 million
245 associations have assets of between $100- and $250 million
127 associations have assets of between $250- and $500 million
119 associations have assets more than $500 million

The number of minority-managed association members utilizing the CIF has also risen since February. Presently 44 of the nation's 77 minority-managed thrifts (or 57.1%), have received advances or commitments, as compared with 25 (or 32.5%) associations then.

Fundamental to the concept of community investment is the process of private financial institutions becoming partners with local, state and Federal government and community organizations. In the present era of tight money and limited resources, the CIF can assist public/private partnerships leverage public dollars. Acting as a catalyst, the Fund has helped to institutionalize the role of private financial institutions as an active partner in local community investment efforts.

Many associations and mutual savings banks (approximately 31% of those using CIF) have entered into partnership to develop and implement first mortgage and/or rehabilitation programs, using a combination of Department of Housing and Urban Development (HUD) Community Development Block Grants and/or Urban Development Action Grants to finance extensive development and revitalization strategies. There are also numerous private partnership efforts (22%). State housing agency programs are being used by 24% of the CIF participants.

In addition, 56% of these CIF participants have utilized CIF funds to establish home loan counseling programs. The programs are directed to prospective home buyers of varying income groups. They offer free advice, budget counseling and referrals to lender consortiums for possible permanent financing.

Rural lending initiatives have received a boost from 15% of the CIF participating thrift institutions which have implemented unique marketing efforts directed to residents of sparsely populated areas.

Some of the many creative efforts which have directed or stimulated revitalization are participating in HUD subsidized housing, for example, Section 8 and 235 (45%), Neighborhood Reinvestment Corporation programs (36%), below market pass-through programs (11%), special efforts targeted to low- to moderate-income neighborhoods (31%), and affirmative marketing programs (74%).

The 416 associations which have passed an anniversary date between the inception of the program and December 1979 report that 104,510 housing units have been financed by nearly $3.3 billion, thereby leveraging approximately $1 billion in CIF advances for these advances for these associations at a ratio of approximately 3 to 1. In addition, 356 of the 416 associations monitored now have community lending specialists, 336 now have affirmative marketing programs and 279 have developed counseling programs which have counseled approximately 39,000 applicants.

J. National Consumer Cooperative Bank

The National Consumer Cooperative Bank was signed into law by President Carter on August 20, 1978 and is a mixed ownership government corporation. The Bank is designed to provide financial and technical assistance to organizations chartered or operated on a cooperative, not-for-profit basis to produce or furnish goods, services, or facilities for its members as consumers. The Office of Self-Help Development and Technical Assistance will provide special services and capital investment advances to eligible cooperatives that provide such goods, services, and facilities, with special attention to those that serve low and moderate income persons.

In late 1978, the Administration established an Interagency Task Force to prepare recommendations for operation of the Bank and the Office. This group completed its work in July 1979, and in September 1979, the 13-member Board of Directors was confirmed by the Senate. The Board is composed of private citizens with cooperative experience, and representatives of federal agencies. The Bank is designed to become a totally private instrumentality as cooperatively-owned businesses purchase stock.

In 1980, the Bank conducted public meetings in 14 locations throughout the country to obtain public comments on its proposed policies. It is anticipated that the Bank will make its first loans in the Spring of 1980.

The Bank's 1980 Budget is $74 million as passed by the Congress on October 24, 1979. This, of course, is in the form of a loan from the U.S. Treasury which must be repaid. Of the total, $40.05 million is for loans; $17 million for Self-Help Development Fund advances; and $7.95 million for Technical Assistance and Administation.

The Budget for FY 81, as presented to the Congress in January 1980, includes an additional request for approximately $174 million.

Commencing on October 1, 1983, the Bank cannot make any loan to a cooperative for the purposes of financing the construction, ownership, acquisition, or improvement of any structure used primarily for residential purposes, if the aggregate amount of all loans outstanding for such purpose would exceed 30 percent of the gross assets of the Bank.

In addition, the bank will make its best efforts to insure that at the end of each fiscal year at least 35 percent of its outstanding loans are to cooperatives composed of low income persons or serving low-income persons.

Appendix C

Non-financial Resources for Housing Production

I. Manpower

A. Employment Requirements

Residential construction activity in 1978 continued the strong pace set in 1977, creating requirements for 856,200 full-time equivalent jobs—only about 8,000 below the number generated in 1977. Nonresidential building construction, particularly industrial projects, rebounded in 1978, pushing labor requirements in this sector to 1,390,600 nearly 54,000 full-time equivalent jobs above the 1977 level of 1,337,000. As a result, demand for on-site labor in the construction industry increased between 1977 and 1978 by approximately 46,000 full-time equivalent jobs, from 2.2 million to 2.25 million. (See table C-1).

The fast pace of residential construction continued for the first 3 quarters of 1979, but slowed abruptly during the final quarter, reducing the number of full-time equivalent jobs during the year to 713,000--a decline of about 145,000 from the previous year. Nonresidential construction, however, continued the strong pace set in 1978 and required nearly 1,414,000 full-time equivalent jobs, an increase of about 25,000. (See table C-1.)

The downward trend in residential construction begun in late 1979 is expected to continue into 1980. Housing activity is expected to be adversely affected by interest rates, which rose

Table C-1

Estimated On-Site Employment Requirements for New Construction, Calendar Years 1977-80

(In thousands of year-long jobs [1])

	1977	1978	1979	1980	
				Low	High
Total new construction	2,201	2,246.8	2,126.7	1,814.5	1,931.2
Residential [2]	864	856.2	712.7	534.4	612.0
1 to 4 family units	744	721.8	586.6	442.4	497.2
5 or more family units [3]	120	134.4	126.1	92.0	114.8
Nonresidential construction [4]	1,337	1,390.6	1,414.0	1,280.1	1,319.2
Addenda: Annual percent change in jobs					
Total		2.1	- 5.3	-14.7	- 9.2
Residential construction		-0.9	-16.8	-25.0	-14.1
Nonresidential construction		4.0	1.7	- 9.5	- 6.7

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[1] Year-long jobs calculated at 1,800 hours.

[2] Excludes nonhousekeeping units, additions and alterations, and mobile homes. Subsidized units and rehabilitated units are assumed to be zero.

[3] Includes publicly owned units.

[4] Forecast based on Data Resources Incorporated projections and Bureau of Labor Statistics productivity and jobs data.

sharply in the last quarter of 1979, and by the uncertainty of economic conditions. Since there are different views, however, regarding the extent of the anticipated decline in residential construction, alternatives were developed to illustrate the impact of low and high estimates of housing starts for 1980. The alternative projections of housing starts are expected to generate between 535,000 and 612,000 full-time equivalent jobs, a number significantly below 1979 when housing starts generated 713.000 full-time equivalent jobs.

Like residential construction, nonresidential construction is expected to be adversely affected by high interest rates and uncertainty of economic conditions—particularly the cost of fuel; during 1980, a decline of 95,000 to 135,000 full-time equivalent jobs is expected. 1/

Thus, projected total on-site employment requirements under the low and high estimates range from 1.82 to 1.93 million full-time equivalent jobs, down from 2.13 million in 1979. These estimates along with estimates of the occupational distribution of construction requirements are shown in table C-2.

Between 1977 and 1978, total on-site job requirements in new construction changed little among the selected crafts studied

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1/ The projections of nonresidential construction activity are consistent with Data Resources Incorporated projections (November 1979 version), combined with estimates by the Bureau of Labor Statistics for productivity and historical data on value put in place.

Table C-2

Estimated On-Site Employment Requirements for New Construction, Calendar Years 1977-80

(In thousands of year-long jobs 1/)

	1977	1978	1979	1980		Percent changes			
						1977-1978	1978-1979	1979-80	
				Low	High			Low	High
Total new construction:									
All occupations	2,201	2,247	2,127	1,815	1,931	2.1	-5.3	-14.7	-9.2
Selected trades	1,023	1,029	968	806	865	0.6	-5.9	-16.7	-10.6
Bricklayers	105	107	99	83	89	1.9	-7.5	-16.2	-10.1
Carpenters	391	389	358	280	307	-0.5	-8.0	-21.8	-14.2
Cement finishers	46	45	41	36	39	-2.2	-8.9	-12.2	-4.9
Electricians	117	119	117	102	107	1.7	-1.7	-12.8	-8.5
Operating engineers	138	142	142	127	132	2.9	--	-10.6	-7.0
Painters	87	84	75	59	66	-3.4	-10.7	-21.3	-12.0
Plumbers and pipefitters	139	143	136	119	125	2.9	-4.5	-12.5	-8.1
All others	1,179	1,218	1,159	1,009	1,066	3.3	-4.8	-12.9	-8.0
Residential:									
All occupations	864	856	713	534	612	-0.9	-16.8	-25.0	-14.1
Selected trades	489	482	401	301	345	-1.4	-16.8	-24.9	-14.0
Bricklayers	50	50	41	31	35	--	-18.0	-24.4	-14.6
Carpenters	253	250	207	155	178	-1.2	-17.2	-25.1	-14.0
Cement finishers	23	21	17	13	15	-8.7	-19.0	-23.5	-11.8
Electricians	34	33	29	21	24	-2.9	-12.1	-27.9	-17.2
Operating engineers	15	15	12	9	11	--	-20.0	-25.0	-8.3
Painters	63	62	52	39	45	-1.6	-16.1	-25.0	-13.5
Plumbers and pipefitters	51	51	43	33	37	--	-15.7	-23.3	-14.0
All others	375	374	312	233	267	-0.3	-16.6	-25.3	-14.4
Nonresidential:									
All occupations	1,337	1,391	1,414	1,280	1,319	4.0	1.7	-9.5	-6.7
Selected trades	534	547	567	505	520	2.4	3.7	-10.9	-8.6
Bricklayers	55	57	58	52	54	3.6	1.8	-10.3	-6.9
Carpenters	138	139	151	125	129	0.7	8.6	-17.2	-14.6
Cement finishers	23	24	24	23	24	4.3	-	-4.2	---
Electricians	83	86	88	81	83	3.6	2.3	-8.0	-5.7
Operating engineers	123	127	130	118	121	3.3	2.4	-9.2	-6.9
Painters	24	22	23	20	21	-8.3	4.5	-13.0	-8.7
Plumbers and pipefitters	88	92	93	86	88	4.5	1.1	-7.5	-5.4
All others	803	844	847	775	799	5.1	.4	-8.5	-5.7

1/ Year-long jobs calculated at 1,800 hours.

Source: Bureau of Labor Statistics

ranging from a decline of 3.4 percent for painters to an increase of 3.3 percent for plumbers and pipefitters. Requirements by type of construction, however, differed significantly. In residential building, all trades, except for bricklayers, operating engineers, and plumbers who recorded no change, experienced declines ranging from 0.3 percent to 8.7 percent. In nonresidential construction, all trades, except for painters who declined 8 percent, increased by an average of 3.6 percent.

During 1979, the number of full-time jobs among selected craft occupations in residential construction declined markedly--an average of 17 percent. Electricians, who recorded a drop of 12 percent, were affected least. In contrast, all trades in nonresidential construction, except for cement finishers who were unchanged, experienced job increases averaging nearly 2 percent. The largest change in this sector was for carpenters, which increased by 9 percent. (See table C-2.).

On-site job requirements in residential construction for selected craft occupations are expected to decline from 8 to 28 percent. Similiar declines, ranging from 5 to 17 percent, are expected in nonresidential construction.

For 1980, the demand for 1,815,000 to 1,930,000 full-time equivalent jobs in residential and nonresidential construction could create jobs for as many as 2.1 million workers--significantly below the 2.3 million construction workers who found employment in 1979. 2/ With prospects of an overall decline in demand for on-site

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2/ The calculations for the number of workers reflect average hours worked per week. These data, taken from the Current Population Survey, indicate that the ratio of all workers to full-time workers is about 1.1 to 1.

labor, an increase in unemployment of construction workers--particularly in housing--may result. The level of unemployment, however, is uncertain because construction workers possess skills which are transferrable to jobs in other industries. Because of the reduced demand for construction craft workers, labor shortages that occasionally disrupt building on a regional basis are expected to be limited.

B. Wage-rate Increases in the Construction Industry, 1978 and 1979

Employment pressures appeared to be stronger than price pressures in the construction industry during 1978, and had a dampening effect on wages in the industry. Thus, while hourly wages for construction workers remained among the highest in the nation, there was little change in the size of wage increases for those workers over what they had received the previous year. In most cases these increases failed to keep pace with increases in the cost of living.

Following three years of stability in the size of settlements, average wage-rate gains in major construction industry labor agreements accelerated during 1979. Most significant among the factors that contributed to this development were the continued downward trend in the unemployment rate in the industry, and the increased rate of inflation as measured by the Consumer Price Index.

Employment in the construction industry was up during 1978, but the unemployment rate, though reaching its lowest point since 1974 by dropping to 9.2 percent in May, was 11.5 in October. With unemployment in the industry remaining high, nonunion contractors continued to offer stiff competition for available work by providing labor at a lower rate and with fewer work-rule restrictions. During 1977, union workers reacted to these stimuli in many cases by establishing new rates for residential and rehabilitation work, which were lower than the commercial rates, in order to be more competitive in those areas. During 1978, in a continued effort to resist expanson of merit shop work, many unions agreements were rewritten to ease work rules, particularly in the area of overtime.

In August 1979 employment in the construction industry reached an all-time high, while at the same time the seasonally adjusted unemployment rate--at 9.5 percent--was down considerably from its peak in 1975, when it averaged 18.1 percent for the year. With the reduced competition for available jobs and the accelerated rate of price increase (the CPI-W rose 12.8 percent from November 1978 to November 1979), union workers in their contract negotiations were concerned more with obtaining increased wage rates than in securing improved or new job security provisions.

These economic pressures were reflected in the size of pay gains negotiated in major construction industry collective bargaining units (those covering 1,000 workers or more) during the first nine months of 1979. The average agreed-upon first-year wage-rate adjustment was 9.0 percent, compared with 6.5 percent in 1978, 6.3 in 1977, and 6.1 in 1976. Similarly, the average negotiated first-year adjustment in wages and benefits combined was 9.2 percent during the first nine months of 1979, compared with 6.3 percent in 1978, 6.7 in 1977, and 6.9 in 1976.

Agreed-upon wage increases tended to be larger in the first as against subsequent contract years. The total negotiated wage rate adjustment over the term of the contract, expressed at an annual rate, averaged 8.5 percent for settlements reached during the first nine months of 1979, compared with 6.2 percent for contracts negotiated in 1978. For wages and benefits combined, average adjustments over the life of contracts were 8.1 percent a year for those negotiated in the first nine months of 1979, and 5.9 percent for contracts negotiated in 1978. Contracts negotiated in 1976 and 1977 provided average adjustments over the term of about the same magnitude as those provided in 1978 contracts.

As in past years, the size of wage changes negotiated during the first nine months of 1979 varied considerably by region. First-year changes in the South Atlantic, South Central, and Mountain regions were the smallest--averaging about 8.5 percent--while changes negotiated in the Pacific region once again were the largest, about 12.5 percent.

First-year wage changes also varied by type of construction performed, but have followed no specific pattern from year to year. During 1978, first-year increases for workers engaged in general construction other than building were the highest, averaging between 7 and 7 1/2 percent, compared with 6 1/2 percent the previous year. Workers employed by general building contractors had the lowest first-year wage increases, averaging 6 percent. In 1977, the average for these workers was the highest, at about 7 percent. Increases for workers engaged in special trades averaged about 6 1/2 percent in 1978. For contracts signed in the first nine months of 1979, workers engaged in general building construction received the largest first-year changes, averaging 10.3 percent; workers in special trades construction received 9.9 percent; and those in general construction other than building received 8.4 percent.

Collective bargaining agreements in the construction industry tend to be of shorter duration than those in other industries. Contracts negotiated during the first nine months of 1979 had an average duration of 26.7 months compared with 27.5 months when these same bargaining units last settled.

While increases resulting from newly negotiated settlements most closely reflect current economic conditions, the majority of unionized workers are not affected by new agreements each year, but may receive increases from decisions in prior years, and/or the operation of automatic cost-of-living escalator clauses. Taken together, these three sources of change--current decisions, prior decisions ("deferred" increases), and escalator provisions--account for all the general wage-rate changes going into effect during a year.

During the first nine months of 1978, construction workers in major bargaining units received wage increases averaging about 5 1/2 percent. Increases resulting from settlements during the year averaged 2 1/2 percent when prorated over all construction workers in major bargaining units, while those resulting from prior decisions averaged about 3 1/2 percent. Both of these increases were slightly less than those recorded in the previous year.

Negotiating activity in major construction industry bargaining units was relatively light in 1979. Consequently, deferred wage increases had a greater impact on the overall average wage change effective in 1979 than did increases that were both negotiated and effective in the year. Wage adjustments effective during the first nine months of 1979, when prorated over all construction workers in major bargaining units, averaged 6.5 percent, compared with 6.2 percent during the same period a year earlier. The Consumer Price Index for Urban Wage Earners and Clerical Workers increased 10.3 and 7.0 percent for the first nine months of these respective years. Of these 1979 wage adjustments, those that resulted from contract settlements amounted to 2.1 percent when averaged over all construction workers, while those that resulted from prior decisions amounted to 4.4 percent.

Cost-of-living increases were negligible when prorated over all construction workers in 1978 and 1979, although approximately 165,000 and 150,000 construction workers were covered by contracts containing such clauses in 1978 and 1979, respectively. In most of these cases, however, cost-of-living increases are triggered only when the percentage increase of the scheduled wage and benefit change during the year.

In 1978, average union wage-rate changes for building trades in large cities showed increases consistent with those recorded in the major bargaining units. Over the 12 months ended October 2, 1978, basic (minimum) wage rates agreed upon through collective bargaining by the seven major building trades in cities of 100,000 inhabitants or more increased 5.8 percent, showing a slight rise over the 5.6 percent increase for the previous year. When employer contributions to insurance, pension and vacation funds were included, the average change was 6.3 percent, compared with 6.6 percent for the same time period in 1977. According to that survey, painters and electricians received the largest increases, while bricklayers and plasterers had the lowest. In terms of hourly compensation rates (wages plus insurance, pension and vacations), however, plumbers were the highest paid construction workers.

Increases in union wage rates for building trades in large cities also accelerated in 1979, although not to the degree measured in major collective bargaining agreements. Wage rates negotiated by the seven major building trades in cities of 100,000 inhabitants or more rose an average of 6.9 percent for the 12-month period ended October 1, 1979, up from 5.8 percent the previous year. When wage rates and employer contributions to six selected benefit funds were combined, the annual rate of increase was 7.0 percent, compared with 6.3 percent in 1978. (The effects of employer contributions to only three benefit funds were measured in 1978 and earlier.) Of the seven major trades, plumbers showed the largest average wage-rate increase during the 1978-79 period at 8.0 percent, and painters had the lowest at 6.4 percent Hourly wage rates as of October 1, 1979 ranged from $9.09 for building laborers to $12.62 for electricians. With employer payments to specified worker benefit funds included, the hourly rates ranged from $11.37 to $15.61 for the same two crafts.

While the major collective bargaining series is limited to production and nonsupervisory workers in large unionized units, and the wage-rate series to union members in large cities, two series are available which provide limited data for both nonunion and unionized workers regardless of unit size. In both cases, these series recorded wage changes which were larger than those discussed above. The Hourly Earnings Index showed a November 1977-to-November 1978 rise of 7.7 percent for the construction industry, while the Employment Cost Index rose 8.1 percent during the 12 months ended September 1978 for workers in the construction industry. In both cases, these increases were substantially larger than the previous year's increases. The Hourly Earnings Index for the construction industry rose 6.9 percent betwee September 1978 and September 1979, while the Employment Cost Index for construction workers increased 7.2 percent during the same period. These increases were below those recorded the previous year.

Negotiated first-year increases will have a greater impact on the overall average wage adjustment in construction in 1980 than they did in 1979. About 800,000 workers are under major agreements scheduled to expire or to be reopened during the year, compared with just over 500,000 workers in 1979. Conversely, the number of workers scheduled to receive deferred wage increases in 1980 under major agreements is down, to about 850,000, from over 1 million in 1979. The increases already determined for 1980 will average about 6.9 percent. As indicated earlier, the comparable figure for the first nine months of 1979 was 4.4 percent. In addition, 45,000 workers are under major agreements which call for cost-of-living escalator reviews in 1980, nearly all of whom also will receive a deferred wage increase during the year. (The remaining 105,000 construction workers covered by escalator clauses have contracts that expire in 1980 without an escalator review.)

C. Training for the Construction Industry

Although there are a variety of informal routes to obtaining construction skills, the major source of formal training for the skilled construction trades is through the apprenticeship system. The Federal Government, through the Bureau of Apprenticeship and Training of the Department of Labor, and a number of States with State Apprenticeship Councils provide technical support and assistance to the system. However, apprenticeship programs are, for the most part, privately supported and administered.

Typically in construction apprenticeship, training is administered at the local level through Joint Apprenticeship Committees (JAC's) composed of representatives of management and labor. These committees are responsible for determining the number of apprentices needed, selecting apprentices, assuring the quality of training and providing general oversight of the program. A common practice in the union sector, which accounts for most construction apprenticeship, is to finance apprenticeship training through an areawide fund to which employers contribute in proportion to their total number of employee-hours worked in a particular craft. The proceeds of this fund are used to support the administrative costs of the program and off-the-job training.

Typical construction apprenticeships range from 3 to 5 years depending on the trade with some programs having provision for faster progression based on performance and experience. The usual practice in construction is for the apprentice to be indentured to the JAC rather than to an individual employer. This allows the apprentice to work in a variety of jobs and to be exposed to all facets of the trade.

In 1978, the most recent year for which statistics are available, there was substantial growth in construction apprenticeship; over 175,000 apprentices were in training for the various construction trades at the end of the year, an increase of 10 percent over the same period in 1977. New registrations in 1978 were at a near record level of over 80,000 or--(up 26 percent over 1977). Completions were down slightly from 32,000 to 30,000 reflecting the low level of new registrations during the period of reduced construction activity in 1974 - 1976 when many of the latest class completing apprenticeship began their training.

The level of construction apprenticeship is highly sensitive to interest rates and other factors that influence the extent of construction activity. During downturns employers not only are reluctant to take on new apprentices but many experienced apprentices leave the industry because of lack of work. Thus, between 1973 and 1975, new registrations dropped from 83,000 to 48,000 because of the reduction in the volume of construction. The number of apprentices in training at the end of the year declined from 183,000 in 1973 to 154,000 by 1976. Because of the time required to complete an apprenticeship, the harmful effects of a slow down in construction are often manifested only several years later in reduced availability of trained journeymen. Thus, a major concern is to develop ways to retain apprentices in the system during slack periods.

Table C-3 gives the apprenticeship actions for 1977 and 1978 by trade. Virtually all trades experienced substantial increases in new registrations, continuing the strong rebound from the mid-1970's. This strong growth in the number of apprentices in training promises a substantial increase in the number of apprentice trained journeymen completing their training in each of the next several years.

Under the Comprehensive Employment and Training Act (CETA), the Department of Labor administers a wide range of federally funded employment and training programs. Several of the major national programs with substantial activity in construction training are described below. Generally these programs are intended to prepare the participants for entry level jobs in construction and frequently are designed to lead to apprenticeship. In FY 1978 and 1979, these national programs significantly expanded training for constuction occupations.

Table C-3

Construction Apprenticeship
1977

Trade	New Registrations	Completions	In Training End of Year
Bricklayers, Stone & Tile Setters	2,832	1,138	7,149
Carpenters	18,416	6,614	36,752
Cement Masons	1,230	399	2,606
Dry-Wall Finisher	1,118	99	1,306
Electricians	11,290	6,849	31,523
Floor Coverers	690	173	1,333
Glaziers	370	236	1,101
Insulation Workers	706	260	2,431
Lathers	497	183	1,252
Line Erectors, Light and Power	1,548	800	4,134
Operating Engineers	1,710	1,299	5,311
Ornamental & Iron-Workers	34	95	208
Painters	3,215	981	6,350
Pipefitters	4,274	2,883	13,077
Pipefitters-Steamfitters	185	454	940
Plasters	476	148	1,103
Plumbers	6,054	4,106	16,725
Roofers	2,416	564	4,173
Sheet Metal Workers	3,747	2,542	10,565
Sprinkler Fitters	373	327	2,103
Structural Steel Workers	2,746	2,129	7,164
TOTAL	63,927	32,279	157,306

Table C-3 (continued)

Construction Apprenticeship
1978

Trade	New Registrations	Completions	In Training E of Year
Bricklayers, Stone & Tile Setters	3,927	1,031	8,423
Carpenters	23,019	5,577	43,174
Cement Masons	1,672	402	3,129
Dry-Wall Finisher	1,097	180	1,770
Electricians	14,040	6,920	34,486
Floor Coverers	881	241	1,705
Glaziers	552	250	1,155
Lathers	670	172	1,408
Line Erectors, Light and Power	2,034	831	4,667
Operating Engineers	2,378	1,433	5,431
Ornamental & Iron-Workers	107	67	202
Painters	3,641	947	6,825
Pipefitters, steamfitters, sprinkler-fitters	5,430	3,515	16,417
Plasters	622	164	1,233
Plumbers	6,809	3,286	17,627
Roofers	3,792	428	5,452
Sheet Metal Workers	4,803	2,390	11,188
Structural Steel Workers	4,326	1,774	8,211
Construction Workers, N.E.C.	1,024	537	2,800
TOTAL	80,824	30,145	175,303

Source: Bureau of Apprenticeship and Training

Job Corps -- The Job Corps operates 93 centers, which provide intensive education and skill trianing for severely disadvantaged youth. Thirty-two centers, called Civilian Conservation Centers (CCCs), are located on public lands and place major emphasis on construction training. National construction unions operate a large number of construction training programs at these centers and assist in placing the youth in the construction industry. In FY 1979, the Job Corps trained 10,180 youths in a wide variety of construction skills, an increase of 22 percent over the 8,360 trained in FY 1978. Trainees by trade are shown in Table C-4.

Targeted Outreach Programs -- This program has two components, Apprenticeship Outreach and Journeymen Upgrading. The first is designed to prepare youth, primarily minority, for entrance into apprenticeship; the upgrading program prepares older minority workers with some experience in construction to move into the skilled trades. In FY 1978, 5,830 persons participated in these programs. In the first 9 months of FY 1979, over 2,700 minority youth were placed in construction appenticeship programs and almost 1,500 minority workers were upgraded to skilled construction trades through the Target Outreach Program.

National-On-The-Job Training Program -- The National OJT Program provides for nationwide training programs under the direction of national unions and trade associations with networks of local

Table C-4

Estimated Trainees in Selected Construction Occupations Under the Comprehensive Employment and Training Act National Programs FY 1978 & 1979

Trade	Job Corps		National OJT		Targeted Outreach Program 1/	
	1978	1979	1978	1979	1978	1979
Bricklayers, Stone & Tile Setters	1,670	2,000	650	720	440	330
Carpenters	2,240	2,750	2,140	660	1,310	1,040
Electricians	620	820	620	1,050	810	650
Operating Engineers	600	660	310	440	320	390
Painters	910	1,060	370	320	240	380
Plasterers	260	300	650	690	50	70
Plumbers	160	290	380	-	640	470
Roofers	-	-	50	-	210	170
Sheet Metal Workers	-	-	30	-	430	270
Structural Steel Workers	-	-	410	800	240	110
Construction Trades N.E.C.	1,900	2,300	180	2,620	1,140	170
Total	8,360	10,180	5,790	7,300	5,830	4,050

1/ Represents indentures in apprenticeship programs and placements in skilled trades. Data for 9 months through June 30, 1979.

Source: Bureau of Apprenticeship and Training affiliates. Organizations participating in this program include a number of the national construction unions and the National Association of Homebuilders. In FY 1978 and 1979, these national organizations provided training opportunities in construction trades for an estimated 5,830 and 7,300 persons respectively (Table C-4).

Most of the funds under CETA are allocated to State and local units of government to design and administer employment and training programs that meet the needs of their communities. These local programs provide substantial construction training but precise data on the numbers of trainees and occupations are not available. Several new programs recently authorized have the potential for significantly expanding construction training. For example, the Private Sector Initiatives Program, which provides for increased training by industry can be expected to increase the training available to the construction industry. Another development that could affect the amount of construction training available is the planned expansion of youth programs. The wide range of activities under the youth effort includes a number of pilot projects, which are designed to link apprenticeship to schools and could ultimately improve the primary system for obtaining construction skills. Finally, a special section recently added to CETA (Title II-C) provides for upgrading the skills of employed persons and may be particularly useful in developing construction skills.

II. **Materials**

A. Demand and Supply Outlook for Building Products 1976-79

The 1976-79 period can be characterized as the upswing and peak of the construction activity cycle. The recovery from the 1975 recession for new housing construction took place in 1977 an 1978. Nonresidential construction, which usually lags the housin sector by 12 to 18 months in its cycles, did not regain its momentum until 1978 and 1979. Building products demand, during the period, grew rapidly from the very low levels of 1975.

The housing recovery that started in 1976 was modest with private single family units started up less than 300,000 from the .89 million unit starts in 1975 and multi-family units up abou 100,000 to 375,000 starts. There was no improvement that year in the overall level of nonresidential construction. Thus, overall supplies of building products remained more than adequate to meet demand.

In 1977, new housing construction grew rapidly in the Southwest and Western states. In these areas nonresidential constructi also turned up appreciably with material supplies tightening. A few shortages (i.e. cement, gypsum board) developed. Other parts of the country experienced a more modest housing upsurge and nonresidential activity remained weak. Building product supplies, as a whole, were adequate in these areas. Single family housing starts for the year were up about another 300,000 to 1.45 million units while multifamily starts were about 160,000 more than in 1976 and totaled almost 54,000 units. Although total new housing starts that year were still about 350,000 less than in the peak year of 1972, single family starts in 1977 were 140,000 more than the record set in 1972. Material shortages in 1977 developed for insulation, clay brick, asphalt roofing, gypsum wallboard and cement. These were most serious in the West.

Peak demand for building products was reached in 1978 based on strong residential and nonresidential construction activity. Housing starts rose only about 33,000 nationally, but the higher level of activity was spread more across the country. At the same time, nonresidential construction rose significantly. Product shortages spread with cement in short supply in all areas except the East. The insulation supply situation eased somewhat in 1978 with additional capacity and a drop-off in retrofitting work. Gypsum board shortages lessened in early 1978, in spite of high demand, as capacity expansion began to catch up with demand. However, in the fall of 1978 orders for gypsum boards rose to record levels and delivery delays resulted. Brick supplies remained tight throughout the year.

Material demand in early 1979 remained high as levels of nonresidential construction continued to rise and housing activity remained stronger than anticipated. The large number of starts the previous year also supported materials demand for units that were completed in 1979. Demand for many products, particularly those associated with housing construction, began to drop off in the fall and early winter. Overall demand for construction products in 1979 was only slightly less than experienced in 1978. With capacity levels up and greater imports, shortage situations in 1979 were considerably less serious and widespread than in the previous two years. Housing starts in 1979 reached almost 1.75 million units, a drop-off of about 14 percent from 1978, and private non-residential building activity rose an estimated 12 percent in real terms. Total construction put in place in 1979 grew about 8 percent in value but, after adjusting for inflation, a total real new construction activity for the year dropped 4-5 percent.

Although we have experienced a few widespread shortage problems, such as insulation in 1976-77, most building materials supply shortfalls are local or regional in nature rather than national. Even the serious cement supply problems of 1978 were not in evidence on the East Coast. In the 1976-79 period, the Southwest experienced the greatest construction activity growth with the Western and Southern sphere of states also experiencing high levels of activity. Although the Eastern and North Central states also benefited from higher rates of new construction, their growth rate was more moderate and, thereby, fewer material shortages developed. The 1978 construction boom caused cement supply problems in the North Central states and a boom in Florida in late 1978 and 1979 brought on gypsum board shortages in that area. The following table shows private housing start trends by region since 1973.

Percent Change

	U.S.	Northeast	North Central	South	West
1973	-13	-16	-1	-15	-19
1974	-34	-34	-28	-39	-34
1975	-13	-19	-7	-20	-3
1976	+33	+13	+36	+29	+45
1977	+29	+19	+16	+38	+34
1978	+2	-1	-3	+5	+1
1979	-14	-12	-23	-9	-14

The mix of construction and housing activity is also an important factor in materials demand. Total construction put in place in 1972 dollars, rose 8 percent in 1976, 9 percent in 1977, percent in 1978, and dropped about 3 percent in 1979. The major construction sectors showed the following diverse trends, in 1972 dollars, for these years:

	Percent Change			
	1976	1977	1978	1979^e
Private total	+12	+11	+5	-1
Public total	-6	-8	+6	-9
Residential Bldg.	+21	+19	+2	-7
Non Residential Buildings	-2	+3	+13	+9
Public Utilities	+10	-5	+12	-7
Highways & Streets	-10	-9	-5	-13

(e) Estimate

The mix of new housing activity also impacts the market for specific materials. The following table indicates the trends in single family and multifamily construction activity since the last housing boom in 1973 and the percent of total housing each segment accounted for:

Year	Single Family (Million units	% of Total	Multifamily (million units)	% of Total
1973	1.13	55	.91	45
1974	.89	66	.45	34
1975	.89	77	.27	23
1976	1.16	75	.38	25
1977	1.45	73	.54	27
1978	1.43	71	.59	29
1979^e	1.20	69	.55	31

e - Estimate

Mobile homes, another major consumer of building materials, are not included in housing start data. Originally most popular in the North Central, Northeast and Middle Atlantic states, their greatest growth and sales are now in the Southern and Western states. Although financing terms are longer and the HUD national standard has helped improve quality and safety, local zoning regulations and the lack of space for mobile homes have reduced sales. During the last 3 years mobile home shipments have been in the 270,000 to 275,000 units range, less than half their 1972-73 shipment level. Today's mobile homes, however, are larger and more conventional in appearance. From the standpoint of material demand, the double and triple sized units, now accounting for over 1/3 of the units produced, require more structural, cladding, finishing and other materials than those units produced just a few years ago.

The residential fix-up and additions market has grown rapidly in recent years for both contractor and do-it-yourself work. Material distribution through the local lumber yard/home center has become a significant factor. Recent data for residential alterations, repairs and improvements demonstrate the rapid growth:

Year	Billion $	Percent Increase
1973	18.5	5.7
1974	21.1	14.1
1975	25.2	19.4
1976	29.0	15.1
1977	31.3	7.9
1978	37.5	19.8
1979e	43.0	14.7

e - Estimate

1980

Commerce Department projections for total 1980 construction work call for a 10 percent drop in real activity. Most of this decline is expected to come as a result of a 20 percent decline in housing starts, to about the 1.4 million unit level with a probable range of from 1.3 to 1.5 million units. The resulting downturn in demand for building products dependent on new housing should be significant.

Many areas of nonresidential construction should also experience declines in levels of real activity in 1980 but most declines should be more modest than anticipated for housing. The important nonresidential building sector should have a 1980 performance similar to that in 1979 but its industrial segment should rise significantly. Appreciable activity rises are also anticipated for gas utilities, railroad construction, petroleum pipelines, military facilities and hospitals. The largest declines in real nonresidential construction levels are expected to occur for electric light and power, public buildings, highways and streets, conservation and development, and sewer system and water supply facilities.

There will be a carry over demand for some building products from housing started in late 1979, however, building material suppliers should expect to see lower levels of housing starts early in 1980 with some improvement later in the year. The mix of single family/multi-family units started in 1980, assuming a 1.4 million units total, should be about 950,000 singles and 450,000 multis. This represents 250,000 less singles and 100,000 fewer multis from 1979. Materials demand should also be down for mobile homes as shipments for 1980 are anticipated to drop below the 250,000 unit level, a decline of at least 8 percent from 1979.

Important to the supply/demand picture for 1980 will be the geographical demand situation. Some parts of the South and West will likely not experience a significant drop off in construction activity with materials demand remaining strong. Some product supplies could be tight in these areas.

Materials demand from the residential alterations and improvements sector should rise above 1979 levels. This will result from energy conservation work stimulated by higher fuel costs and tax incentives, the experience in recent years that such investment is quickly regained in higher building property values, and the usual tendency in times of recession to fix up what you have rather than buy another home.

B. Building Material Output: 1975-79

Table 1 provides data on building material production or shipment volume for the years 1975-79. Whereas most product categories registered increases in 1978, the housing decline in 1979 resulted in volume decreases for most products. The only products recording gains in 1979 were fabricated structural steel with a large nonresidential market, warm air furnaces with strong replacement market and newer more energy efficient equipment, insulation materials, and gypsum boards.

Other products impacted by the housing downturn but with a strong nonresidential market had relatively small declines (i.e., cement, sand and gravel, and reinforcing bars). For many products, with a primary dependence on new housing, the volume drop off in 1979 was less than it might have been because of the carry over of demand from strong housing starts levels in late 1978. Demand for products such as asphalt roofing, insulation, and some plumbing fixtures, was helped by the strong alterations, additions and replacements market for existing structures.

C. Building Material Prices: 1975-79

Building material prices rose significantly in the 1975-79 period. Factors contributing to price pressures included rising demand, several product shortage situations, and rising costs associated with manufacturing and transportation. Energy, so important to the production of many building products, has undoubtedly been one of the greatest cost-push factors.

The following table presents the percentage changes in the Bureau of Labor Statistics all construction materials producer price index compared to the all commodities producer price index and three leading indexes covering construction costs. Whereas the all construction materials index rose faster in 1976-77-78 than the all commodities index, in 1979 its increase was about 2.5 percentage points less. In the last two years, 1978 and 1979, the materials rise was less than for the Commerce Composite Construction index and in the last three years it grew less than the Census One Family House index.

Table C-5 Percent Changes in Selected Construction Cost Indexes

Year	All Construction Materials Producer (ACMI) Price index	All Commodities Producer Price index	Department of Commerce Composite Construction Cost index	Bureau of the Census New One Family Houses Sold index(excl. Census lot value)	Boeckh Commercial & Factory Building Cost index
			Percent change		
1972-73....	9.4	13.8	8.7	9.5	6.6
1973-74....	16.2	18.2	16.7	10.3	10.8
1974-75....	8.1	9.2	9.1	8.9	10.4
1975-76....	7.9	4.6	4.0	7.2	8.5
1976-77....	9.2	6.1	8.8	12.0	8.0
1977-78....	11.4	7.8	12.3	14.0	7.5
1978-79....	10.1^{p}	12.5^{p}	11.3 1/	13.4 2/	9.2 3/

1/ November 1978 over November 1977

2/ 2nd quarter 1978 over 2nd quarter 1977

3/ September-October 1978 over September-October 1977

p Preliminary

The all construction materials 1979 index level of 251.4 indicates that these materials as a whole in 1979 were about 150 percent higher in price than in 1967, the base year for the index.

Table 2 shows the annual producer price index for selected building products included in the all construction materials index for the years 1975-79 and percentage increases for the last two years. As shown, there were few price decreases recorded for 1978 and 1979. Several products registered large percentage index price rises of 30 percent or more over the two year (1978-79) period (millwork, gypsum products, reinforcing bars and copper water tubing Increases of 20 to 30 percent were registered for softwood lumber, galvanized sheets, steel structural shapes, metal doors (sash and trim), Portland cement, ready mixed concrete, concrete blocks, prepared asphalt roofing, clay brick, window glass, aluminum siding, sand and gravel, and building lime.

D. Major Product Categories

1. Cement, concrete, concrete products, and aggregates

Cement supplies are critical to the ready-mixed concrete and concrete products (block, pipe precast, prestressed, dry mix) industries and ultimately to the construction industry. Cement supply shortfalls were a great concern in 1977 and 1978 when cement production capacity, particularly in the South and West, was not adequate to meet the fast rising demand. By 1979, overall demand had leveled off, some additional capacity was added, imports were greater, and both producers and users had adjusted better to the tight supply situation. Shortages problems, therefore, were not as serious and less widespread. During the period, capacity of the various concrete industries as a whole was adequate to meet demand but their problem was to get enough cement to keep in full operation.

Cement demand in 1980 is expected to drop about 6 percent from 1979 levels thereby further reducing chances of widespread shortages. Some areas of the country may not experience a cut back in construction activity in 1980 with cement supplies remaining tight. Although demand may drop about 6 percent in 1980, domestic production will likely drop only about 2-3 percent, the rest being accounted for by a probable reduction in imports.

Other materials required by concrete products producers and construction contractors should be in overall adequate supply in 1980; i.e. aggregates (heavy and lightweight), reinforcing bars and mesh, prestressing steel, and admixtures. Historically certain aggregates are not readily available in some geographic areas.

Cement production capacity in 1980 will benefit from new capacity (new plants and additions) in Alabama, California, Colorado, Michigan, and Texas. Three plant closings were announced in late 1979 which will reduce 1980 capacity in Indiana and Pennsylvania. There may likely be one or two additional older plants closed later in 1980. Additions to overall industry capacity in 1980 should surpass closings and, most important, the new capacity is located in areas that have experienced cement shortfalls in recent years and where future demand growth is anticipated.

Growing levels of imports, much of it imported by U.S. producers themselves, has been important to solving the shortage problem in some areas of the country. U.S. imports served a similar purpose during the 1972-73 construction boom. Import levels for clinker, white cement and grey cement the last few years totaled:

1972	4.8	Million Short Tons
1973	6.7	"
1974	5.7	"
1975	3.7	"
1976	3.1	"
1977	4.0	"
1978	7.7	"
1979	9.8	"

Imports in 1980 will likely drop off somewhat reflecting lessened demand but still probably remain above the 1978 level.

Cement prices have risen significantly responding to high demand, fast rising manufacturing and transportation costs primarily associated with the energy situation, as well as the high cost of installing air pollution control equipment, energy saving and fuel conservation equipment, and adding new capacity. The producer price index for Portland cement was up over 12 percent in 1979, almost 10 percent in 1978, 7-8 percent in 1977, 10 percent in 1976, and over 19 percent in 1975. Price rises of concrete products are shown in table 1. Price increases in 1980 should be somewhat more moderate than experienced in 1979.

The longer term concrete supply/demand situation will depend in part on the duration and extent of the current downturn in construction. A strong and fast recovery in the early 1980's will likely again bring on widespread shortages. Unexpected and untimely production curtailments due to work stoppages or technical problems could, as they did in 1978, cause serious local problems. Cement and concrete market share growth is expected to continue. Demand will also benefit from the fact that cement and concrete is most popular in the South and West where the greatest growth is expected in the next 5 years. The MX missle program and expected major programs for developing fuel and fuel alternative systems will further stimulate cement demand.

On the supply side, new plants and additions are under construction or have been announced for opening in the 1981 to 1985 period in Arizona, California, Colorado, Iowa Maryland, Missouri, New York, Texas, Utah, and Wyoming. There will likely be some additional plant and kiln closings in this period, but total additions are expected to exceed closings. New plants and major expansions sometimes require 4 to 5 years to plan the facility, get all the required approvals, build the plant and get it into full operation. The cost is also great with a new plant of about a million ton capacity costing from $100 to $125 million.

Also impacting cement in the next few years will be the development of "blended cements" requiring less cement in a concrete mixture by using materials such as waste fly ash as a substitute for some of the cement in the mixture.

For roadways and driveways asphalt competes with cement. Cement has no substitute for many applications (footings, slabs). In buildings, structural steel or loadbearing clay brick or concrete block can be used instead of basic reinforced concrete construction. Building products of concrete have many competitors, depending on application, using metals, plastics, clay, wood, stone and even glass.

2. Clay Brick

Demand for clay brick soared in 1977 with the resurgence of housing activity. Delivery delays became a problem for contractors in some areas of the country in 1977 and were more widespread in 1978. Brick production in 1978 approached the 1973 record of 8.7 billion brick, totaling 8.6 billion. Production dropped off to an estimated 8.3 billion in 1979 reflecting the 14 percent decline in housing starts and resulting in an easing of the shortage problem.

The 20 percent decline in new housing forecasted for 1980, and the anticipated decline in commercial building construction will further reduce brick demand thereby making widespread shortage problems unlikely.

Clay brick as a structural, paving and cladding material has many potential substitutes in the case that builders should encounter brick supply problems. Structural product design alternatives can include the use of wood, metals, prestressed concrete, and reinforced concrete. Substitutes for cladding or siding application include stone, concrete block and brick, stucco, precast concrete, and siding materials of steel, aluminum, wood, or plastic.

Process fuel and transportation costs have been important factors impacting clay brick prices in recent years. The producer price index for clay brick was up over 12 percent in 1979 and about 15 percent in both 1977 and 1978. Price rises should be less severe in 1980 in light of the reduced demand.

3. Gypsum Board

Although gypsum board demand is primarily dependent on new housing activity, it also has a strong new nonresidential building market and is important in major additions and alterations work. Based upon strong performances in all three of these market areas in 1978, gypsum board shipments were at a record level of 16.45 billion sq. ft. Strong carry-over demand from 1978 housing, high levels of new nonresidential building construction, and the additions and alterations market resulted in a 1 percent increase in 1979 shipments to about 16.65 billion sq. ft.

The downturn projected for 1980 for new housing and the decline expected in commercial building construction should reduce gypsum board demand in 1980 to a level in the 14-15 billion sq. ft. range.

Gypsum board shortages developed in 1977 as demand rose significantly in some parts of the country. Considerable production capacity had been closed during the 1975 recession. Shortages eased in early 1978 with additional production capacity but worsened again in the fall and early winter. Additional capacity further reduced shortage situations in 1979 although in certain markets, such as Florida, supplies remained short. Overall supply in 1980 should be more than adequate for expected demand but some shortages could remain in areas not impacted by the expected downturn in construction activity.

Gypsum board prices, mostly reflecting demand as well as energy transportation and paper costs, rose significantly the last several years. The producer price index for gypsum products (mostly board) was up 10 percent in 1979, 25 percent in 1978, and 19 percent in 1977.

Substitute possibilities for contractors unable to get gypsum wallboard are limited as few other products combine the combination of a "Class A" flame spread rating and relatively low price. Depending on building codes and application, gypsum plaster, wood paneling and a variety of wood and mineral based ceiling panels can be used in place of gypsum board.

4. Asphalt roofing and other roofing products

Asphalt roofing continues to dominate the national residential roofing market and is the major roofing material in nonresidential buildings. Although the new construction market is important to the asphalt roofing producers, the huge demand for repairing or reroofing existing buildings is of at least equal importance. The latter market tends to cushion the industry from the impact of construction recessions.

In 1977 there were some local problems with asphalt roofing supplies. Problems in 1978 and 1979 were minimum. Shipments of organic base asphalt shingles which peaked at almost 103 million sales squares in 1973, were at the 93 to 94 million level in 1976 and 1977. Data for 1978 for the first time included the new fiberglass base asphalt roofing product which is experiencing fast demand growth. Shipments of both these types of roofing in 1978 reached over 116 million sales squares and shipments for 1979 are estimated to have been down about 4 percent to 111 million.

Raw asphalt supply and price are very critical to asphalt roofing production. Although there were serious asphalt shortages in the early 1970's, supplies have been adequate the last few years, but at considerably higher prices. The new fiberglass base product requires less asphalt than the organic base product.

Responding to strong demand from the new and replacement markets as well as strong cost pressures, the producer price index for prepared asphalt roofing products rose 9 percent in 1979 after increasing 17 percent in 1978.

Asphalt roofing has by far the largest share of the residential construction market in the U.S. In some parts of the U.S. (southern tier of states) concrete and clay tiles are widely used. Alternatives to asphalt roofing for sloped application are slate, cellulosic-asphaltic panels, metal (sheet and shingles), wood shingles, and asbestos cement shingles. Most of these products are much more costly and available in only limited quantities. For flat roofs, various plastic sheeting materials and liquid coatings can be used in place of built-up asphalt materials.

5. Plumbing fixtures and fittings

The new housing sector is the major market for plumbing fittings and fixtures, although there is also a substantial replacements and additions market. Demand, therefore, was strong particularly in 1977 and 1978 and only slightly weaker in 1979. No serious product shortages developed as a result of this demand, except for some short term delays for builders requiring particular models or colors. Assuming no major production curtailments (labor problems etc.), supplies should be more than adequate for expected 1980 demand.

The traditional vitreous (sinks, urinals, toilet bowls, and water closets) and metal fixtures (sinks, tubs, shower stalls, urinals have in more recent years experienced strong competition from fixtures of composition materials (marblized coated concrete) and plastics (reinforced fiberglass, etc.). Fittings are also now made of plastic and plastic metal combinations in addition to the traditional use of brass, copper and steel.

Price increases for plumbing fixtures and fittings have been modest compared to many other products used in building construction. The group index was up 9 percent in 1979, and 7 percent in each of the two previous years. Of the component indexes, vitreous china fixtures rose faster the last 3 years than the indexes for metal fixtures and brass fittings.

6. Heating equipment

Builders seldom have problems getting heating equipment, although specific types or models occasionally may not be available immediately.

Some shortages have developed with regard to conversion burners for existing furnaces which allow owners to convert from more costly oil to gas heat. The heating equipment replacement market has benefited from higher energy costs as some home owners replace equipment earlier than normal to get more efficient and less costly heating. Equipment purchases involving the switch to less scarce and often less costly fuels have also grown. Wood and coal space heating appliances and duel fuel heating equipment have also gained popularity. Heat pump usage has increased but supply is plentiful with producers offering a broad product line. Solar comfort and water heating equipment is also plentiful for those willing to pay their higher cost.

Bureau of the Census data on characteristics of new single family homes completed in 1978 showed that 86 percent had central systems and 14 percent had noncentral built in room heating systems. Of those with central systems, warm air ducted furnaces accounted for 57 percent of the 89 percent, heat pumps 25 percent and hydronic systems 5 percent. Noncentral built-in systems totaled 14 percent with 10 percent electric, and 4 percent other types or no heating. Heating fuel usage by these homes in 1978 was electricity 52 percent, gas 37 percent, oil 8 percent, and other fuels or no heating accounted for 3 percent.

The producer price index for heating equipment, including air and water heating, rose almost 10 percent in 1979 reflecting, to some extent, the more costly and more energy efficient equipment on the market today. In the three previous years the index rose only about 5 percent annually.

7. Building insulation and selected products

Since the serious widespread insulation shortages of 1977, a combination of a drop off in demand and rapid expansion of capacity, particularly by the fiberglass and foamed plastics producers, have eased the supply problems. There have been, however, instances of spot shortages of particular types of insulation in 1978 and 1979.

Despite the 12 percent drop in housing starts in 1979, fiberglass insulation production is estimated to have grown 2 percent that year because of the strengthened retrofit market.

Although shipments of fiberglass and other insulation may decline in 1980 because of the anticipated 20 percent decline in new housing, the reduction is likely to be small because of continued high retrofit demand.

Substitutability among insulation products is good although building codes and product characteristics limit application of some materials. Competing in the ceiling or attic insulation market are "blown in" or "batt" fiberglass; "blown in", "poured" or "batt" rock wool; "loose fill" or "sprayed" cellulose; perlite; vermiculite; and reflective foil. Wall cavity insulation can include products of fiberglass, rock wool, cellulose, plastic forms (boards, pour-in-place, frothing or sprayed), perlite, vermiculite and foil.

Health and safety problems with certain insulation materials remain. The cellulose situation has improved with the establishment of a national standard requiring proper chemical treatment of the

Table C-6 Quantities of Output for Selected Construction Materials Used in Housing 1975-79

	1975	1976	1977	1978	1979 1/	Percent Change 1977-78	Percent Change 1978-79
Lumber and wood:							
Softwood lumber (production in millions of board feet)	26,747	29,378	31,160	30,700	29,100	-1.5	-5.2
Softwood plywood (production in millions of square feet)	15,706	17,906	18,840	19,450	18,670	3.2	-4.0
Iron and steel (shipments in thousand tons)							
Fabricated structural steel	4,335	3,719	3,486	3,485	3,700	---	6.2
Reinforcing bars (concrete)	3,666	3,876	4,179	4,702	4,500	12.5	-4.3
Galvanized sheets	3,720	5,180	5,657	6,432	6,200	13.7	-3.6
Cast iron soil pipe	594	658	682	734	670	7.6	-8.7
Nails	265	281	278	289	280	4.0	-3.1
Gypsum board products (shipments in millions of square feet)	10,742	13,118	15,391	16,450	16,650	6.9	1.2
Heating equipment (shipments in thousand of units):							
Warm Air furnaces, except electric	1,368	1,496	1,754	1,867	1,990	6.4	6.6
Water heaters	5,507	5,914	6,672	7,190	7,025	7.8	-2.3
Prepared asphalt roofing (shipments in thousands of squares)(excludes fiberglass mat shingles)	90,828	93,759	93,497	116,217 2/	111,000	24.3	-4.5
Brick, unglazed, common & face (production in millions)	6,544	7,341	7,929	8,621	8,275	8.7	-4.0
Plumbing fixtures (thousands of units, production):							
Lavatories	3,858	4,237	5,047	5,103	4,750	1.1	-6.9
Water closet bowls, flush tanks and urinals	10,223	12,459	15,393	15,628	14,525	1.5	-7.1
Sinks and laundry trays	4,098	4,219	5,121	5,521	5,100	7.8	-7.4
Bathtub and shower stalls	2,409	2,749	3,212	3,811	3,400	18.6	-10.8
Copper water tubing (shipments in millions of pounds)	310	374	432	451	475	4.4	5.3
Copper building wire (shipments in millions of pounds)	483	566	624	714	700	14.4	-2.0
Portland cement (shipments of U.S. produced cement in thousands of short tons)	66,796	70,721	76,881	81,451	80,000	5.9	-1.8
Fiberglass insulation, structural (production, million pounds)	1,286	1,667	2,082	2,246	2,290	7.9	2.0
Sand & Gravel, (Construction aggretates sold or used by producers - thousand tons)	762,152	855,242	897,900	963,300	960,000	7.3	-0.3

Source: Construction Review, Bureau of Industrial Economics, and Current Industrial Reports, Bureau of the Census, U.S. Department of Commerce.

1/ Estimated by Bureau of Industrial Economics, U.S. Department of Commerce

2/ Data for fiberglass base shingles included for first time.

Table C-7 Indexes of Price and Price Change for Selected Construction Materials Used in Housing 1975-79
(1967=100)

Product	1975	1976	1977	1978	1979 1/	Percent Change 1977-78	Percent Change 1978-79
Producer Prices--All Commodities	174.9	183.0	194.2	209.3	235.5	7.8	12.5
All Construction Materials	174.0	187.7	204.9	228.3	251.4	11.4	10.1
Lumber and wood products	176.9	205.6	236.3	275.4	300.4	16.8	8.9
Millwork	160.4	176.9	193.7	235.4	254.3	21.5	8.0
Softwood lumber	200.6	248.1	296.2	345.7	379.8	16.7	9.9
Softwood Plywood	200.6	247.6	295.8	326.4	322.5	10.3	-1.2
Gypsum products	144.0	154.4	183.5	229.1	252.3	24.9	10.1
Building paper and board	127.1	138.8	157.0	187.4	182.7	19.4	-2.5
Fabricated structural steel for buildings	202.4	205.0	212.9	232.8	251.7	9.3	8.1
Reinforcing bars (concrete)	199.2	182.5	185.8	208.4	260.9	12.2	25.2
Galvanized steel sheets	187.7	203.1	221.0	240.6	267.8	8.9	11.3
Finished steel structural shapes	216.3	227.1	241.2	272.0	300.4	12.8	10.4
Metal sash, doors and trim	162.5	171.3	188.7	207.6	229.8	10.0	10.7
Heating Equipment	150.7	158.0	165.5	174.4	187.0	5.4	7.2
Warm air furnaces	139.5	145.2	152.0	162.0	178.1	6.6	9.9
Water heaters (domestic)	164.4	166.0	170.9	176.8	188.5	3.5	6.6
Portland cement	193.3	212.7	228.6	251.3	282.3	9.9	12.3
Ready mixed concrete	171.8	184.1	196.6	218.9	249.5	11.3	14.0
Concrete building blocks	165.8	171.7	183.6	201.6	232.8	9.8	15.5
Prepared asphalt roofing	217.9	231.3	246.4	288.8	314.4	17.2	8.9
Clay building brick	160.5	177.0	204.0	234.4	263.1	14.9	12.2
Clay tile	145.4	156.1	158.8	158.1	171.3	-0.4	8.3
Window glass	177.7	206.4	223.5	248.4	269.0e	11.1	8.3
Insulation materials	196.2	212.6	235.9	250.7	256.3	6.3	2.2
Plumbing fixtures and brass fittings	162.3	174.1	186.6	199.1	217.1	6.7	9.0
Brass fittings	162.2	174.1	186.5	197.6	216.7	6.0	9.7
Enameled & iron plumbing fixtures	188.4	201.2	214.6	223.6	239.7	4.2	7.2
Vitreous china fixtures	146.6	159.0	174.2	189.8	207.7	9.0	9.4
Builders hardware	158.8	164.1	175.4	187.7	205.2	7.0	9.3
Aluminum siding, noninsulated, manufactured to distributor	150.1	162.0	184.9	211.8	223.0e	14.5	5.3
Prepared paint	166.9	174.4	182.4	192.3	204.2	5.4	6.2
Wire nails 8D common	241.4	243.6	261.3	273.5	298.5	4.7	9.1
Copper water tubing, straight lengths	134.9	144.5	152.7	e 161.4	212.8	5.7	31.8
Sand, gravel, and crushed stone	151.1	161.2	170.7	185.8	207.0	8.8	11.4
Plastic construction materials (Dec. 1969=100)	123.9	127.2	133.2	136.4	147.5	2.4	8.1
Building lime	186.0	205.1	220.1	247.7	273.3	12.5	10.3

Source: Bureau of Labor Statistics, U.S. Department of Labor and Bureau of Industrial Economics, U.S. Department of Commerce

1/ Estimates based on unrevised data for 1979

e Estimate based on data for only a few months

9. Softwood Sawtimber

Consumption of softwood sawtimber products rose in 1978, as a small drop in use for new housing construction was more than offset by continuing increases in other markets. Use in new housing construction, the Nation's most important softwood sawtimber products market, was estimated at 25.3 billion board feet, lumber tally (Table C-8). This is some 0.3 billion board feet greater than 1977. Consumption in other markets increased 1.2 billion board feet in 1978 reaching a level of 34.3 billion. Total use in 1978 is estimated at 59.6 billion board feet, 1.5 billion above that of 1977. Consumption of softwood sawtimber products dropped in 1979, as a decline in use for new housing construction more than offset continuing increases in other markets. Based on preliminary data, consumption in new housing construction is estimated at 21.6 billion board feet, lumber tally (Table C-8). This is some 3.7 billion board feet below 1978, and the result of a drop in the relative importance of single-family housing as well as a 15 percent decline in the total number of units started. The number of mobile homes shipped was virtually unchanged. Consumption in other markets increased 2.3 billion board feet, reaching a level of 36.6 billion. Total use in 1979 is estimated at 58.2 billion board feet, 1.4 billion below that of 1978.

Based on low and high forecasts of housing production shown in Table 1, demand for softwood sawtimber products in housing is expected to range between 16.5 and 18.8 billion board feet in 1980. Estimates of con-

Table C-8 -Consumption and supply of softwood sawtimber 1977-79, with estimates for 1980

(Billion board feet, lumber tally)

	1977	1978	1979	1980	
				Low	High
Consumption:					
Housing	25.0	25.3	21.6	16.5	18.8
Other	33.1	34.3	36.6	37.5	37.5
Total	58.1	59.6	58.2	54.0	56.3
Supply:					
Log harvest					
National forest	10.2	11.0	11.0	11.0	11.0
Other lands	42.6	42.4	42.5	42.5	42.5
Total	52.8	53.4	53.5	53.5	53.5
Log exports	3.8	4.2	4.8	4.8	4.8
Log imports	.2	.1	.1	.1	.1
Logs for U.S. Mills	49.2	49.3	48.8	48.8	48.8
Lumber imports 1/	10.4	11.8	11.3	11.3	11.3
Lumber exports 1/	1.5	1.5	1.9	1.9	1.9
Total supply	58.1	59.6	58.2	58.2	58.2
Supply-demand balance	0	0	0	+4.2	+1.9

1/ Includes plywood.

Note: Estimates of consumption in housing are based on the following forecasts: 1979--1,720,000 housing starts plus 275,000 mobile homes; 1980 low--1,300,000 housing starts plus 200,000 mobile homes; 1980 high--1,500,000 housing starts plus 250,000 mobile homes. The harvest and import estimates for 1980 are the volumes assumed to be available at prices prevailing in late 1979.

Source: U.S. Department of Agriculture, Forest Service.

tinued, though slow, increases in real economic growth in 1980 suggest that activity in most other markets will rise somewhat in the months ahead. Given this expectation, total demand for softwood sawtimber with the low estimate of housing starts falls to 54.0 billion board feet for 1980. Under the high housing forecast, total demand shows a smaller decline to 56.3 billion board feet.

Primarily in response to continued high levels of demand for use in housing and rising consumption in other markets, softwood lumber and plywood prices continued up in 1978 (Table C-9). The producer price index for softwood lumber in 1978 was 346.0 (1967 = 100), 16 percent above the average for 1977, and a record level. Softwood plywood prices followed similar trends.

Softwood lumber prices continued to rise through the first three quarters of 1979 but declined sharply after September (Table C-9). As a result, prices in December, as indicated by the producer price index, were only slightly above those in January. The average for the year was about 10 percent above 1978, somewhat less than the 16 percent rise between 1977 and 1978. Softwood plywood prices began to trend downward somewhat earlier than those for softwood lumber, and by December had reached a level 16 percent below January. Because of this decline, average softwood plywood prices for 1979 were down about one percent from those in 1978.

Table C-9 --Producer price indexes for softwood lumber and plywood, 1977-79

Year and month	Softwood lumber							Softwood plywood		
	All softwood lumber	Douglas-fir		Southern pine			Ponderosa pine, shop No. 2	All softwood plywood	Interior panel 1/4-in., grade A-D	Exterior panel 3/8-in., grade A-C
		All Douglas-fir lumber	Dimension, construction dried	All southern pine lumber	Dimension No. 2	Boards No. 2				
1977	(297.4)	(291.4)	(279.0)	(262.5)	(265.0)	(271.3)	(425.7)	(295.8)	(295.2)	(279.7)
January	277.3	282.5	276.5	233.6	228.2	249.2	385.3	281.2	275.1	272.9
February	278.5	281.1	273.0	234.9	229.3	247.8	394.9	282.7	275.7	273.5
March	286.7	287.4	281.0	241.2	236.6	252.4	411.3	285.4	275.3	272.9
April	288.5	281.8	273.7	244.8	240.8	258.5	426.0	276.6	268.3	259.3
May	286.8	279.8	272.9	244.8	239.6	259.9	441.1	273.9	263.7	257.7
June	281.4	273.0	258.9	246.9	243.0	263.7	439.7	278.4	269.1	251.4
July	295.6	295.5	279.6	263.1	266.3	275.9	435.2	296.4	283.1	275.3
August	308.6	304.1	293.6	281.3	294.7	284.2	434.2	313.8	304.9	290.0
September	328.8	318.5	312.4	298.6	322.0	289.9	430.0	334.8	324.0	303.2
October	316.4	302.5	287.3	289.2	304.9	288.6	431.4	314.7	322.2	296.9
November	306.2	290.6	264.0	283.6	288.0	290.6	436.0	294.4	329.2	284.4
December	313.8	299.7	275.7	267.4	286.9	294.3	441.3	317.8	352.3	318.7
1978	(346.0)	(339.7)	(306.8)	(304.6)	(300.2)	(329.9)	(519.1)	(326.4)	(349.0)	(319.5)
January	324.5	306.7	288.3	292.0	290.7	299.7	455.6	325.9	359.4	333.2
February	333.4	311.8	292.8	295.7	293.4	305.5	478.4	329.0	361.1	332.5
March	336.8	320.3	298.2	299.6	295.9	313.6	493.3	315.8	347.3	317.5
April	341.1	318.3	288.8	304.6	303.2	321.5	507.8	300.5	332.0	293.2
May	339.5	323.9	288.7	307.2	303.7	329.7	527.6	318.5	344.0	314.3
June	343.6	334.1	297.0	307.4	302.6	331.5	538.3	323.8	346.0	317.9
July	340.4	337.4	296.7	303.5	297.0	333.6	551.7	317.0	332.9	297.2
August	349.3	357.9	329.4	305.7	299.3	337.7	543.8	340.5	345.5	327.2
September	355.6	364.6	332.7	308.7	303.5	344.5	535.4	327.9	337.5	353.6
October	357.9	367.6	322.9	308.7	303.0	346.4	533.1	333.0	350.6	322.2
November	367.2	372.8	323.8	311.8	305.3	347.1	531.8	346.5	361.2	339.2
December	363.3	361.1	317.7	310.8	304.2	347.8	531.8	338.6	370.2	343.9
1979	(379.9)	(383.4)	(341.9)	(324.2)	(320.5)	(366.2)	(540.6)	(322.4)	(365.2)	(337.3)
January	357.8	357.2	313.3	307.0	298.1	348.6	524.7	346.7	381.6	367.4
February	361.8	360.1	315.5	306.4	296.2	349.4	527.4	340.0	383.8	371.0
March	375.5	371.0	316.6	315.7	306.6	356.9	543.4	341.4	383.8	371.0
April	381.2	381.1	324.1	319.0	309.7	361.7	547.3	334.0	386.5	365.9
May	380.3	381.8	326.3	315.8	306.0	362.8	566.8	319.5	371.6	343.2
June	380.1	378.3	327.6	315.2	306.2	364.9	566.9	295.2	347.4	304.3
July	380.4	387.4	332.8	320.7	311.4	370.1	556.6	314.4	350.7	321.8
August	394.0	408.2	367.6	333.7	334.6	372.8	534.9	324.8	359.7	326.3
September	405.6	424.0	388.0	343.6	351.6	377.6	528.7	331.0	363.1	329.0
October	400.2	410.4	410.4	344.4	352.9	378.9	535.4	326.5	361.5	330.5
November	381.7	376.2	376.2	341.1	348.2	377.6	536.8	303.1	353.5	319.7
December	359.8	365.3	302.4	328.2	324.4	372.9	517.3	292.2	338.8	294.5

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Softwood stumpage prices, which generally follow trends in product prices, with some lag, also increased in 1978 and early 1979. Scattered data indicate that prices may have begun to moderate somewhat late in 1979.

The total supply of softwood sawtimber products in 1978 was estimated at 59.6 billion board feet, some 1.5 billion above that of 1977 (See Table C-8). Supplies from domestic forests were 53.4 billion board feet, up about 0.6 billion board feet from 1977. Harvests from the National Forests were 11 billion board feet--most of the remaining 42.4 billion board feet came from private land. Net imports of lumber and logs in 1978 totalled 5.1 billion board feet.

The total supply of softwood sawtimber products in 1979 was estimated at 58.2 billion board feet, some 1.4 billion below that in 1978. Supplies from domestic forests were 53.5 billion board feet, down about 0.1 billion board feet. Harvests from the National Forests were 11.0 billion board feet, the same as in 1978. Most of the remaining 42.5 billion board feet came from private lands. Net imports of softwood sawtimber products dropped about 24 percent to 4.7 billion board feet.

Softwood sawtimber harvests from the National Forests are expected to remain at 11.0 billion board feet in 1980. Assuming a continuation of 1979 price levels, potential supply from other domestic sources and foreign trade are likely to remain about the same.

Comparisons of estimated potential softwood sawtimber supplies with demands under both the low and high housing forecasts suggest the likelihood of some further moderation and decline in product and stumpage prices in 1980. Despite this shortrun outlook, many analysts estimate that the high level of household formations resulting from the large number of births in the 1940's and 50's, and the growing needs for replacements due in part from the use of mobile homes, will result in a return to somewhat higher levels of housing demand in the early 1980's. Continued increases in timber demands in other markets also can be expected. On the other hand, supplies are likely to increase slowly. Thus, the longer-run outlook is one of probable continued upward pressures on prices of softwood stumpage and softwood timber products.

III. Land

The role of land costs in the price of new or existing housing units can be estimated from four basic statistical data series. Since 1969, the Bureau of the Census has collected information on the value of improved lots of new, one-family homes sold in the United States.[3/] There are no estimates of the land value for custom built and rental single family houses or for multifamily buildings. A new Census series on lot size by location has been developed for 1974 and following years, but the data shown in this report have not been published by Census. The Federal Housing Administration has published land cost data for FHA-insured (Section 203) new and existing single-family properties since 1935. Data on the value of farm acreage, which is a major source of raw land converted to suburban development, are released as of March 1 and November 1 each year by the Economics, Statistics and Cooperatives Service of the the U.S. Department of Agriculture in a national series extending back through 1960.

National data representative of the value of improved lots for new, one-family houses sold in the United States during the years 1969 through 1978 are shown in Table C-10 below.

[3/] The data were published annually from 1969 to 1974 in U.S. Bureau of the Census Construction Reports - Series C25, Characteristics of New One-Family Homes.

Table C-10

New One-Family Houses Sold, 1969 - 1978: Average Value of Improved Lot and Ratio of Lot Value to Sales Price

Year	Average Value of Improved Lot	Ratio of Lot Value to Sales Price*
1969	$ 5,200	18.9%
1970	4,800	18.3
1971	5,200	18.3
1972	5,500	18.1
1973	6,200	17.6
1974	6,500	16.9
1975	7,500	17.6
1976	8,900	18.5
1977	10,100	18.6
1978	11,600	18.6

* Ratio of average lot value to average sales price of house.

The upward movement of lot values has continued through 1978. Between 1970 and 1978, the average value of improved lots increased over 142 percent with an increase of nearly 13 percent from 1976 to 1977 and of almost 15 percent from 1977 to 1978. The downward movement of the ratio of lot value to sales price of house was reversed in 1975, with the ratio climbing to 18.6 percent in 1977.

Federal Housing Administration data on the characteristics of one-family housing units insured under Section 203 include information on lot size and price per square foot of land. This information for new units is shown in Table C-11.

Table C- 11

New One-Family Housing Units Insured by FHA Under Section 203: Average Value, Size of Site, Price Per Square Foot, and Site Value as a Percent of Total Value 1968 - 1978

		Average Site		
Year	Market Price	Square Feet	Price Per Square Foot*	Site Value as Percent of Total Value
1968	$4,154	9,274	$0.65	20.7%
1969	4,300	9,299	0.68	20.3%
1970	4,982	8,851	0.84	21.0%
1971	5,176	8,254	1.02	21.2%
1972	5,420	7,616	1.19	21.4%
1973	5,341	7,127	1.32	21.2%
1974	5,482	6,986	1.24	19.9%
1975	6,382	7,852	1.24	19.2%
1976	6,954	7,984	1.24	19.6%
1977	7,335	8,111	1.06	19.5%
1978	7,764	8,006	NA	18.5%
1979	9,459	8,023	1.43	19.3%

* Based on Lots reporting both size and price

FHA data on new units do not necessarily report on similar type units each year. In additon, such factors as FHA mortgage limits and relative market shares affect lot size and price so that the data do not fully reflect price trends. However, several items are worth noting, particularly the contrast between the periods 1968-74 and 1974-79. Between 1968 and 1974, average site prices increased almost 32 percent, an average annual rate of increase of about 4.7 percent, while prices increased by nearly 73 percent between 1974 and 1979, an average annual increase of over 11.5 percent. Meanwhile, average lot size decreased almost 25 percent between 1968 and 1974, and increased almost 15 percent between 1974 and 1979. For those units where both lot size and price are given, the price per square foot increased more than 90 percent between 1968 and 1974. Between 1974 and 1976, the price per square foot remained unchanged at $1.24, but declined to $1.06 in 1977. By 1979, it had increased to $1.43. In addition, although site value as a percent of the total value of land and improvements remained stable between 1970 and 1973, this ratio has fluctuated at lower levels through 1979.

The data on FHA-insured existing properties under Section 203 follow the pattern for newly constructed housing, but with lot values lower, lot sizes higher, and costs per square foot lower than for newly constructed Section 203 insured sales,- (See Tables C-12, C-13, and C-14), Farm real estate values per acre provide some measure of raw land costs. As reported by the Department of Agriculture,[4/] average acreage value increased from 1973 through November 1979 at the following rates (for the preceding 12-month period):

1973	-	March	13.6%
		November	20.6%
1974	-	March	24.7%
		November	20.6%
1975	-	March	13.9%
		November	11.8%
1976	-	February	13.6%
		November	17.1%
1977	-	February	16.9%
		November	10.9%
1978	-	February	8.8%
		November	12.2%
1979		February	14.0%
		November	15.7%

Although these figures are influenced primarily by economic conditions in agriculture, they are used here to illustrate trends in the value of raw land.

The USDA also collects data on expected price changes for farm real estate in semi-annual surveys of farm real estate brokers, local bankers, county officials and other persons knowledgeable in the field of farm sales. These expectations may be an indication of price trends in the farm sector. The March 1979 survey indicated that 66 percent of reporters expected land values to increase by 5 percent or more in the year following March 1979. This is the highest proportion expecting

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4/ Economic Statistics and Cooperatives Service, U.S. Department of Agriculture, Farm Real Estate Market Developments.

Table C-12

Selected Series of Average Values of Land, 1968-1979

Item	New Sec. 203 (1)	Existing Sec. 203 (2)	Index of Average Value Per Acre of Farmland (USDA) 1/ (3)
1968	$4,128	$3,617	107
1969	4,277	3,717	113
1970	4,952	3,973	117
1971	5,150	4,021	122
1972	5,420	4,306	132
1973	5,341	3,982	150
1974	5,482	4,519	187
1975	6,382	5,468	213
1976	6,954	5,632	242
1977	7,335	5,828	283
1978	7,764	6,985	308
1979	9,459	7,954	351

1/ Annual data as of March 1 through 1975, as of February 1 thereafter.

Sources: Reports issued by Departments of Agriculture and HUD

Table C-13

Average Lot Size and Value Per Square Foot for 1-Family Homes,[1] 1968-1979

Year	Average Size of Lots in Square Feet		Price Per Square Foot[2]	
	New Sec. 203 (1)	Existing Sec. 203 (2)	New Sec. 203 (3)	Existing Sec. 203 (4)
1968	9,274	9,358	$ .65	$ .55
1969	9,299	9,317	.68	.57
1970	8,851	9,213	.84	.63
1971	8,254	9,292	1.02	.61
1972	7,616	8,354	1.19	.68
1973	7,127	7,644	1.32	.71
1974	6,986	7,846	1.24	.78
1975	7,852	8,299	1.24	.89
1976	7,984	8,172	1.24	.94
1977	8,111	8,485	1.06	.93
1978	8,006	8,540	NA	NA
1979	8,023	8,698	1.43	1.26

[1] Financed by FHA-insured loans.

[2] Based on lots reporting both size and price.

Sources: Reports issued by department of HUD.

Table C-14

Site Values as a Percent of Total Value of Land and Improvements 1968-1979

Year	Site Value as a Percent of Total Value	
	New Sec. 203 (1)	Existing Sec. 203 (2)
1968	20.7	22.0
1969	20.3	21.7
1970	21.0	21.5
1971	21.2	20.6
1972	21.4	21.3
1973	21.2	20.4
1974	19.9	20.4
1975	19.2	20.2
1976	19.6	20.5
1977	19.5	19.5
1978	18.5	19.8
1979	19.3	19.8

Source: Department of HUD reports.

increases since March 1974. The percent of the reporters expecting increases (5 percent or more) in prices over the next 12 months, little change (less than 5 percent), or decreases (5 percent or more) in prices over the next 12 months was as follows since 1973:

Reporting Period		Increases	Little Change	Decreases
1973 -	March	71	28	1
	October	70	28	2
1974 -	March	70	28	2
	October	42	46	12
1975 -	March	23	54	23
	October	45	49	6
1976 -	March	47	48	5
	October	50	43	7
1977 -	March	59	35	6
	October	39	44	17
1978 -	March	47	45	8
	October	59	37	3
1979 -	March	66	32	2
	October	NA	NA	NA

Since 1974 the Bureau of the Census has collected information on lot sizes of houses that were built for sale. Table C-15 presents the median lot size of completed houses by location, for detached and attached houses combined and for detached houses only. As seen in the table, median lot size for both types of single-family house decreased in 1978. Perhaps the most astonishing aspect of the data in Table C-15 is the disparity among the regions in median lot size. In the case of detached houses, the median lot size for homes completed for sale in 1978 was twice as large in the ostensibly crowded Northeast as in the "open spaces" of the West.

Table C-15
Median Lot Sizes of Completed Houses Built for Sale, By Location-Total and Detached Only, 1974-1978

Location	Total Detached and Attached Median Lot Size (Square Feet) 1974	1975	1976	1977	1978	% Change '77-'78	Detached Only Median Lot Size (Square Feet) 1974	1975	1976	1977	1978	%Change '77-'78
United States	10,340	10,537	10,338	10,200	9,891	-3.0%	10,606	10,711	10,524	10,500	10,188	-3.0%
Inside SMSA	9,969	10,105	9,795	9,714	9,376	-3.5%	10,273	10,328	10,058	10,097	9,711	-3.8%
Outside SMSA	12,052	12,416	12,094	12,976	12,449	-4.1%	12,263	12,413	12,246	13,401	12,742	-4.9%
Northeast	14,827	14,962	15,626	15,962	15,983	+0.1%	15,451	15,481	16,366	16,583	17,124	+3.3%
North Central	10,694	10,996	11,041	10,774	10,820	+0.4%	10,764	11,147	11,200	10,975	10,882	-0.8%
South	11,575	11,775	10,861	10,923	10,378	-5.0%	12,094	11,971	11,093	11,475	10,776	-6.1%
West	7,860	7,945	8,166	7,902	8,124	+2.8%	8,017	8,124	8,342	8,117	8,292	+2.2%

Source: U.S. Department of Commerce, Bureau of the Census

Appendix D: Availability of Mortgage Funds for Housing

I. INTRODUCTION

This appendix seeks to ascertain the number of newly constructed and previously occupied residential units expected to be financed in 1980, and the volume of mortgage credits required to do so.

The number of housing units financed is determined not only by the demand for housing but also by the availability of mortgage credit. The volume of residential mortgage financing is determined in competition with demands from other sectors of the capital market. These other competitors include the Treasury, state and local governments, domestic and foreign corporations and foreign governments. Consequently, the estimates must be derived from a model which solves for a solution of all the credit supply and demand forces, given assumptions concerning exogenous events and conditions.

The method of forecasting used in this appendix consists in utilizing the quarterly model developed by Data Resources, Inc. (DRI), with HUD substituting its own assumptions concerning exogenously determined variables. The DRI model generates changes in outstanding mortgage debt by FNMA and GNMA, the principal federal mortgage investors, and by the four principal private mortgage investor groups: savings and loan associations, mutual savings banks, life insurance companies and commercial banks. These estimated net changes are then extrapolated into gross mortgage originations, purchases and sales, etc., by type of property, based on past data taken from HUD's survey of gross mortgage lending. In 1978, the above four lender groups accounted for over 75 percent of all net acquisitions of long term residential mortgage loans and over 85 percent of all residential mortgage construction loans. Of the nearly 25% remaining long term loan net acquisitions, 13 percent was in the form of mortgage pools; the other twelve percent was attributed to state and local credit agencies and other private investors. Therefore, over 80 percent of the volume of mortgage credit can be derived from the DRI model.

Once the gross volume of mortgage credit is determined, estimates are made of expected average loan amounts by type of property. The estimated average loan amounts reflect not only expected housing price changes, but also the impact on loan to value ratios by expected money market conditions. Estimates of the number of residential units financed can then be derived by dividing the appropriate average loan amounts into the estimated gross mortgage lending volumes.

The assumptions and analyses underlying the 1980 projections are discussed below, followed by a summary of the projected mortgage credit flows and the number of units financed. This section is followed by a more detailed discussion of the competing credit demands of the various sectors of the capital market, as well as the contribution of mortgage funds by the major participants of the mortgage market. Details of the projections are set forth in tables that appear at the end of this appendix.

In each table the projections are compared with the actual figures for each of the years 1976-1978 and estimates for 1979 based on actual data for the first ten months.

II. Summary of Assumptions and General Financial Outlook

In an almost identical pattern to 1979, high rates of inflation will generate exceptionally large demands for credit in 1980, despite the likelihood of an economic contraction. High rates of inflation will persist in 1980 for several reasons: (1) rising energy costs will continue to affect residential heating and utility costs, and affect all consumer goods through increased fabrication and transportation costs; (2) stronger wage demands will attempt to recoup real wage losses in 1979 as well as meet expected future inflation; (3) expectations of price stability in the long run are extremely unfavorable.

The bulk of the heavy long-term credit demands are expected to be from the corporate, federal, and municipal sectors. With an economic slowdown, corporate profits will likely fall, resulting in greater external financing needs. Moreover, with many corporate liquidity ratios already well below the secular lows of 1974, many corporations are expected to restructure their debt composition toward the capital markets. Most of this will take place later in the year if long-term rates should be lower.

Both Federal and State and local government financing will be inflated by the budgetary effects of any slowdown in the economy, accompanied by rising prices and wages. U.S. Treasury financing will be further aggravated by the need to build up military forces in response to the deteriorating international situation. Moreover, the international situation may reduce the use of international markets as a source of funds for U.S. Treasury financing, further increasing the borrowing demands on domestic U.S. financial markets, and increasing the downward pressure on the U.S. dollar in foreign exchange markets. The latter development would further aggravate domestic U.S. inflation through the importation of increasingly expensive raw materials.

This diversity of pressures, continuing inflation in the face of an economic slowdown and external pressures upon the dollar, will present enormous problems for general economic policy. There will no doubt be business community pressure to ease monetary policy in the face of the economic slowdown. However, any moves toward easier credit would risk another resurgence of expectational demand which would have to be fought back with more restrictive measures.

In projecting mortgage activity for 1980, several key assumptions were necessary regarding both expected demand and supply of mortgage funds. While mortgage interest rates reached record heights in 1979, the demand for mortgage funds remained unusually strong. Demographic changes in the population in recent years have boosted the underlying demand for housing for several years to come. In addition, homeownership has proven to be an increasingly superior hedge against inflation. Home price increases averaged 10.7 percent since 1970, 15 percent over the last three years-well above the overall inflation rates for those periods. The investment performance of homes as an asset has more than offset the effect of high mortgage interest rates of these same years. Moreover, as inflation pushed family incomes into higher marginal tax brackets, the tax-saving advantages of homeownership became more pronounced.

While the underlying demand for housing due to demographic changes will continue to provide some floor for housing demand, some of the inflation hedge advantage of homeownership has deteriored. With home prices increasing so rapidly in the past few years, fewer first-time home buyers have been able to save enough for downpayments, undercutting this segment of home buying demand. Moreover, despite the sizeable increases in home values, the rapid increase in home mortgage rates to levels above 12%, means that homeowners considering trading up to more expensive homes would incur sizeable capital losses in giving up their considerably cheaper mortgage on their present homes. The scarcity of mortgage funds in the fourth quarter of 1979, together with the record high mortgage commitment rates, cut housing demand to the extent that the average price of homes sold in the fourth quarter actually dropped, moderating expectations of future home prices. Therefore, housing demand is expected to be weak at least during the first half of 1980, gradually growing in strength in the second half should mortgage interest rates recede and credit becomes more readily available. Home prices are also expected to increase more rapidly as demand picks up.

In the past, the supply of mortgage funds depended largely on the ability of thrift institutions to compete for funds in the money markets. Only recently, (1978) have thrifts been given greater opportunity to compete for funds in tight credit periods, using a variety of certificates of deposit. Time deposits now represent over 75 percent of thrift savings capital. While the current costs of these certificates relative to thrift portfolio yields have greatly reduced thrift profit margins, the outlook for lower market rates in the second half of 1980 would mean an improvement in the spread between mortgage yields and the cost of new funds. Under these assumptions, the availability of mortgage credit should improve at that time.

While thrift institutions are expected to be the primary source of mortgage funds in 1980, federal credit agencies, through net purchases of residential mortgages and especially through the guarantee of new issues of pass-through mortgage-backed securities will play a major role in diverting capital into the mortgage markets.

Basic to all of the assumptions above is that Government Policy will be more successful in combating inflation in 1980 than it was in 1979. No improvement in interest rates will occur without lower inflation expectations.

Without an improvement in interest rates from the current record levels, mortgage originations will likely be lower than levels forecasted here. If current interest rate levels persist through 1980, thrift institutions could reach a point where competition for funds would no longer be profitable, severely cutting off a primary source of mortgage credit. Federal credit agency net purchases and guarantees of net issues of pass through mortgage pools would likely pick up part of the slack. However, total mortgage lending, in such a scenario, would be below the levels forecasted here.

III. Summary Forecast of Housing Finance in 1980

As depicted in Table D-5, the department expects the volume of residential long-term mortgage loan originations to total $182.8 billion in 1980, well below the record $199.8 billion that was extended in 1979. Of the 1980 total, $171.3 billion represents originations of long-term mortgage loans on 1-4 family homes with $11.5 billion going for mortgages on multifamily properties.

A. Loans for 1-4 Family

As detailed in Table-10, long-term loan originations for new 1-4 family homes are projected to fall from $59.7 billion in 1979 to $54.8 billion in 1980. While the decline in new mortgage credit appears small, the decline in the number of units financed will be greater given the increase in average loan amount. The number of newly constructed homes financed by mortgage loans is projects to decline from 1,120,000 units in 1979 to 918,000 units. The average loan per new dwelling is expected to increase from $53,300 in 1979 to $59,700 in 1980. The proportion of newly built 1-4 family homes that is financed by mortgage loans is expected to rise from 79.7 percent in 1979 to 80.0 percent in 1980, as new home completions decline from 1.12 million to .92 million units.

In the case of existing homes, the volume of long-term mortgage loan originations is expected to fall from $124.6 billion in 1979 to $116.3 billion in 1980. Because of the increase in the average loan per dwelling from $43,900 to $48,300 the number of existing homes purchases that are financed, or existing homes which are refinanced by mortgage loans is projected to decline. The number of mortgages closed on existing homes is projected to decrease from 2,838,000 in 1979 to 2,408,000 in 1980. As indicated in Table D-10, the volume of sales of existing homes is expected to decline from 3,742,000 in 1979 to 3,087,000 in 1980. The proportion of these home purchases that are mortgage financed (including some refinancing of previously acquired homes) is projected to rise from 76.3 percent in 1979 to 78 percent in 1980.[1/]

B. Multifamily Properties

Long-term mortgage loans for newly constructed multifamily residential properties, which had declined from $8.7 billion in 1973 to $4.5 billion in 1976, are projected to total $6.0 billion in 1980, well below the $7.8

[1/] This relationship should be tempered by the recognition that the mortgage credit data relate to 1-4 family homes, whereas the sales data relate only to single family.

billion generated in 1979. (See Table D-7). This amount will finance substantially fewer new apartment units, 183,000 compared to 257,000 in 1979. The average loan per dwelling unit is expected in increase from $30,300 in 1979 to $32,700.

The supply of long-term loans for existing multifamily properties is projected to fall from $7.4 billion in 1979 to $5.5 billion in 1980. (See Table D-11). The number of units financed will decrease from 211,000 in 1979 to 146,000. The average loan amounts per dwelling unit are estimated to rise from $35,100 to $37,800.

C. Mobile Home Financing[2]

Mobile homes have long been a source of cheap housing for low income families. Because of improvements in quality and amenities, and in response to the price inflation of conventional housing of the past few years, demand for mobile homes has increased steadily. Mobile homes are not financed by mortgage loans. They are generally financed by consumer loans repayable on an installment basis over a period considerably shorter than the maturity for homes mortgage loans, but substantially longer than the repayment period for automobiles and other durable consumer goods.

The volume of credits required to finance mobile home purchases decreased from $7.8 billion in 1973 to $4.3 billion in 1975, but has risen steadily since then, reaching $6.1 billion in both 1978 and 1979.

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[2] The projections of mobile home credit are estimated differently from mortgage credit. Estimates are obtained from the DRI model for new mobile homes shipments. These estimates are expanded by estimates average loan amounts based on VA and Federal Reserve Board.

(See Table D-12). However, inflation and high interest rates and an expected economic contraction will reduce the demand for mobile homes and mobile home credit. Mobile home credit extended in 1980 is projected to total $5.3 billion. Roughly $3.3 billion will be used to finance purchases of new mobile homes.

IV. Projected Credit Demands in the Security Markets.

A. Treasury Securities

Projections in Table D-1 for the unified budget deficit for calendar year 1980 depict a deficit of $53.2 billion compared to $27.7 billion in 1979. The forecast utilizes the following assumptions: (1) no tax cut 1980; (2) slower growth in personal taxes combined with refunds and lower final tax settlements due to 1979 overwithholding; (3) lower social insurance tax growth; (4) a decline in corporate taxes; (5) increased defense spending. It is estimated that the $53.2 billion deficit will require $57.7 billion in new financing. If sales of U.S. securities in foreign markets decline, approximately $51.8 billion will have to financed by the private market. This also assumes that the Federal Reserve will acquire $6.4 billion and U.S. Investment Accounts and federal agencies purchase a net $7.1 billion.

B. Federally Supported Securities

Most Federal agencies now borrow to finance their needs from the Federal Financing Bank. The remaining Federally supported securities sold in the market consist of the debt instruments of the Government sponsored agencies (Federal National Mortgage Association (FNMA), Federal Home Loan Banks (FHLB), Federal Intermediate Credit Banks and Banks for Cooperatives), and the mortgage-backed securities guaranteed by the Government National Mortgage Association (GNMA) and FHLMC. Mortgage backed-securities are also guaranteed by the Farmers Home Administration, but they are now sold entirely to the Federal Financing Bank. Taken together, the total net increase in outstanding Federal Government supported market securities is projected at $49.6 billion in 1980, compared to $48.4 billion in 1979. Most of this increase will derive from a substantial increase in new issues federally supported mortgage pools. Because rising prices and high effective mortgage rates will also eliminate many low-middle income families who are the primary targets of most of the federally sponsored programs, this forecast assumes that some subsidized tandem funds will be earmarked for the coming year.

C. Municipal Securities

Ordinarily, most of the long-term municipal bonds issued by State and local governments are used to finance public facilities. In recent years, "municipal" tax-exempt financing has also served to provide funds for pollution control facilities at privately owned industrial plants, privately owned hospitals, and industrial plants leased to private companies. More recently many state and local governments took advantage of federal tax laws to issue tax-exempt mortgage revenue bonds for single family and multifamily mortgage financing. Although Congress will likely pass legislation some time this year in an effort to limit the benefits of such issues to go only to first time buyers in targeted income groups, such issues are likely to remain politically popular in the face of current home prices and especially because of the spread between tax-exempt bond rates and near record conventional mortgage interest rates. Tax-exempt mortgage revenue bonds will likely increase beyond the $29.3 billion issued in 1979.

In the face an expected economic turndown, continued inflation and lower federal grants-in-aid, state and local governments are expected to sharply curtail construction and other purchases. Nevertheless, inflation in goods and wages will widen some municipal deficits as well as increase the amounts needed to finance needed construction. Gross new long-term municipal bond issues will rise from the $41.9 billion sold in 1979 to nearly $46 billion. Revenue bonds which accounted for 70 percent of municipal bonds sold in 1979 will account for 66 percent in 1980. In addition, the expected economic slowdown should increase the need for more interim financing. Thus, issues of short-term tax-exempts are projected to total $20.2 billion in 1980. Allowing for roll-over of short-term debt, conversions into long-term debt and debt retirements, total municipal debt outstanding is projected to rise by $26.0 billion in 1980, compared to $23.8 billion in 1979.

D. Corporate and Foreign Bonds

In 1979, $22.5 billion in bonds were issued by non-financial corporations, $13.6 billion by real estate and financial corporations, and $5.6 billion by foreign companies and governments. Altogether, $41.7 billion in corporate and foreign bonds were publicly sold or privately placed in 1979. (See Table D-3).

In response to the likely business downturn expected during the first half of 1980, non-financial corporations are expected to reduce spending on plant and equipment outlays, as well as reduce their demand for short-term financing. While there may be less need for capital expansion in 1980, non-financial corporations are, nevertheless, expected to issue a greater volume of long-term indebtedness. The sharp increase in short-term financing for the third year in a row has substantially reduced the debt maturity ratios (bond debt divided by loans and short-term paper) of many nonfinancial corporations to levels below the previous secular lows of 1974. Many firms need to restructure their liabilities to reduce balance sheet risk and improve liquidity.

In view of the above financial problems, nonfinancial corporations are expected to issue $36.4 billion in long-term bonds in 1980. With mortgage and consumer installment credit demand likely to decline 1980, new issues of real estate and finance company bonds are expected to decline, from $13.6 billion to $9.4 billion. Finally, because of continued currency exchange risks, i.e. fluctuations in dollar exchange rates, issues of foreign bonds are expected to total $5.2 billion in 1980. Taken together, nearly $51.0 billion in new issues of corporate and foreign bonds are projected for 1980.

V. Major Mortgage Market Participants

This section reviews in detail the projected mortgage market activity of four major mortgage investors plus mortgage pools. The four major groups of mortgage investors considered here are commercial banks, mutual savings banks, savings and loan associations, and life insurance companies. More detailed data can be found for these lender groups and all of the other identifiable lender groups in Tables D5 to D23.

A. Commercial Banks

In 1979, commercial banks were a major source of consumer installment credit and residential mortgage loans. Moreover, in participating more actively in the mortgage market, many commercial banks began to act more like mortgage bankers in originating mortgages for sale in secondary markets.

There are several reasons why commercial banks are likely to remain a major source of mortgage credit in 1980. First of all, while there will likely be a temporary increase in short-term nonfinancial corporate demand to finance increasing inventories with the onset of the economic downturn, the expected restructuring of corporate debt into long-term securities should lower overall bank loan demand. Secondly, commercial banks, because of their more diversified asset and liability structure, will not endure the deposit losses thrifts are expected to suffer in in early 1980. Consequently, commercial banks should have a more stable supply of loanable funds, subject, of course to Federal Reserve actions aimed at controlling bank reserves.

While gross mortgage originations by commerical banks are expected to decline in 1980 as demand for credit subsides, commercial banks will likely remain a major source of mortgage credit. By of the end of 1980, commercial banks are projected to hold $272.3 billion in mortgage loans. (For detailed projections see Table D-15).

B. Mutual Savings Banks

Mutual savings banks invest in a wide variety of loans and securities, and are the fourth largest mortgage investor group in the U.S. In 1978, with mortgage interest rates outpacing returns on other securities, MSBs increased the share of mortgage holdings in their portfolios relative to other investments for the first time in eleven years. They accomplished this despite a marked slowdown in net new savings flows (excluding interest credited).

In 1979, MSBs suffered a record $6.9 billion in net deposit outflows, substantially greater than the previous record net outflow of $2.8 billion in 1974. While thrift-issued MMCs helped most thrift institutions compete for funds, MSBs located in areas with large marginal state tax rates, could not compete against either the after-tax yields of U.S. Treasury issues or the higher yielding money market funds centered in their operating areas. Nevertheless, given the relatively high yield of mortgage interest rates relative to returns on other long-term investments, mutual savings banks still provided sizeable amounts of residential mortgage credit in 1979.

The outlook for 1980 is not altogether optimistic. With credit conditions expected to tighten further this year, the severe competition for funds is expected to cause further deposit outflows for MSBs. However, NOW accounts and the various new money market certificates should be instrumental in curtailing what could be substantial deposit losses. Mortgage demand is likely to keep effective mortgage rates well above competing long-term security yields. Given the expected short supply of mortgage credit relative to underlying mortgage demand, effective mortgage yields will likely remain well above competing long-term security yields. Consequently, mortgage investments will remain attractive to MSBs, however activity will be below last year's pace. By the end of 1980, mutual savings banks are forecasted to hold about $104 billion in mortgage loans. (For more detail, see Table D-14).

C. Savings and Loan Association

As required by their charters, savings and loan associations generally invest more than 75 percent of their capital in mortgage loans. They comprise the most important source of mortgage credit in the U.S. Consequently, their ability to attract deposits and borrow funds in the market largely determines the availability of mortgage credit.

Following record profits and record volumes of mortgage lending in 1978, which continued into early 1979, savings and loan associations were abrubtly shifted to a low volume, low profits pace by the fourth quarter of 1979. The key to much of the success of S&L's in 1978 was the introduction of the six month money market certificate (MMC) which gave S&Ls a decided edge in competing for funds in the money markets. However, changes in MMC regulations in March, 1979 abolished the thrift ¼ point differential when rates were in excess of 9 percent, and prohibited the compounding of interest on MMCs severely curtailing the S&L competitive edge.

S&Ls had $10.3 billion in net savings inflows in the first quarter before the regulatory changes. Following the changes, S&Ls could attract only an additional $4.9 billion for the rest of the year. S&L profit levels were severely hurt in the fourth quarter following the Federal Reserve's credit tightening moves of October 6, which sharply pushed up both money market and capital interest rates. With short-term rates climbing to 600-700 basis points above regular pass book account yields, savers either switched funds to higher yielding MMCs or withdrew funds, investing the proceeds in money market funds or directly into market securities. By the end of December, 75 percent of all S&L deposits were in some form of certificate of deposit. While the use of six month MMCs and jumbo certificates prevented serious disintermediation, the competition for funds, and especially the moves to credit restraint have resulted in a substantially higher cost deposit base and a need for a higher yielding and more flexible portfolio.

Despite these immense problems S&Ls managed to originate $82.5 billion in 1-4 family long-term mortgages and increase their holdings of all mortgages by $42.9 billion. Although gaining only $15.2 billion in net new savings inflows, S&Ls tapped net loan repayments of $49.7

billion and $24.2 billion in interest credited as the main sources of loanable funds in 1978. Additional FHLBB advances of $8.1 billion plus $4.1 billion in other borrowings and $6.2 billion in net sales (sales less purchases) of mortgage loans provided the remaining needs.

The outlook for 1980, is that conditions similar to the last two months of 1979 will prevail through most of 1980, easing somewhat by the end of the year. Record high interest rates will continue to suppress housing credit demand as well as force S&Ls to pay premium dividends in order to maintain their savings capital. Money market certificates will have their main effect in preventing a major outflow of funds. Most of the S&L mortgage lending will be financed through $50.5 billion in net loan repayments, $25.5 billion in interested credited, and $8 billion through increased use of secondary mortgage market transactions. By the end of 1980, S&L mortgage holdings are expected to total $510.9 billion.

D. Life Insurance Companies

Life insurance companies invested a record volume of funds in 1979. While investments in corporate bonds provided the major outlet for life insurance investments, mortgage lending resumed a normal role in investment operations, improving further on the gains made in 1978. While the major share of life insurance mortgage lending went for commercial, industrial, and farm properties, an increasing number of companies became more active in the residential mortgage market. This renewed interest in residential mortgages was inspired by the high level of mortgage yields net of servicing costs, as well as continued improvement with loan delinquencies and foreclosures.

In 1979, life insurance companies increased their holdings of mortgages on multifamily properties, although not by as large a volume as in 1978. Last year's (1979) acquisitions of $1.7 billion in multifamily mortgages were off nearly $160 million from 1978's volume, but substantially above the $1 billion made in 1977. More than half of the acquisitions were for mortgages on new buildings.

There was a marked change in investment in 1-4 family home mortgages by life insurance companies. Life insurance companies nearly doubled their net acquisitions of 1-4 family mortgage loans with originations of $1.8 billion and with net purchases of $1.2 billion. Life insurance holdings of 1-4 family mortgages increased for the first time since 1966.

In 1980, the same factors which were important to increased investment in residential mortgages last year will still be present. While most of the increase in life insurance mortgage lending will again go for commercial and farm properties, the upward trend in residential mortgage loan investment should continue. Life insurance holdings of all mortgage loans are expected to increase $11.6 billion by the end of 1980 to $126.8 billion. (See Table D-16 for further detail).

E. Mortgage Pools

Introduced in 1970, mortgage-backed pass through securities have developed into a major source of mortgage credit by converting mortgage loans into more attractive and more liquid investments. Their use as a countercyclical tool became evident in 1974 when pass-through securities accounted for six percent of all mortgage loan originations. In 1979, net issues of federally guaranteed mortgage pools accounted for 15.5 percent of all long-term residential mortgage originations in 1979. Moreover, the success of the federally supported mortgage pools encouraged the inauguration of privately insured pools of conventional mortgage loans, begun in 1977. Last year, privately insured pools provided $2.6 billion in additional mortgage credit.

In 1980, with thrift institutions expected to have even greater difficulty in attracting net new savings inflows, there will be even greater reliance on secondary mortgage markets as a source for mortgage credit. Federally supported mortgage pools are expected to issue a net volume of $38.6 billion in pools of residential mortgage loans, with $37.5 billion for 1-4 family mortgages. Privately insured pools are expected to grow by $4.1 billion. Combined, mortgage pools will finance nearly 23 percent of all residential mortgage originations in 1980, up from 16.8 percent in 1979.

Table D-1
Federal Fiscal and Financing Operations
(dollars in billions)

	Calendar Years				
	Actual		Projected		
	1976	1977	1978	1979	1980
Federal Budget					
1. Receipts	$318.5	$366.1	$416.9	$480.6	$521.6
2. Outlays	375.1	417.1	460.7	508.3	574.8
3. Surplus, or Deficit (-)	-56.6	-51.0	-43.8	-27.7	-53.2
4. Trust Funds	- .9	11.6	16.1	10.3	-.5
5. Federal Funds	-57.5	-62.7	-59.9	-38.0	-49.7
Off Budget Surplus or Deficit (-)					
6. Federal Fin. Bank	-8.4	-8.7	-10.2	-13.6	-13.5
7. Other	-4.9	-1.7	-1.1	6.5	-5.5
U.S. Budget Plus Off Budget					
8. Surplus or Deficit (-)	-62.3	-61.4	-53.0	-45.1	-57.7
financed by					
9. Borrowing from Public	69.0	56.8	53.7	27.2	51.8
10. Cash and Monetary Assets	-5.8	-.3	-1.7	-12.1	1.1
11. Other	-1.0	5.0	1.0	5.8	4.8
Federally Supported Market Securities					
Net Change in:					
Agency Debt	.3	1.3	.7	1.4	.9
Sponsored Agency Debt	2.6	5.7	23.9	23.7	18.5
Guaranteed Securities	15.2	20.5	18.3	23.3	30.2
Total	18.1	27.5	42.9	48.4	49.6
Memo Items					
Treasury Operating Balance	11.7	12.3	16.3	13.9	13.6
F.R. Banks	10.4	7.1	4.2	4.0	6.4
Tax and Loar Accounts	1.3	5.2	12.1	9.8	7.1
Other Award Accounts	*	*	*	*	*

* Less than $100 million

Sources: Treasury Bulletin, Federal Reserve Bulletin, Securities and Exchange Commission, data from individual agencies, and Department of HUD estimates and projections.

Table D-2
State and Local Government Securities
(Billions of Dollars)

	Calendar Years				
	Actual		Projected		
Bond Issues	1976	1977	1978	1979	1980
General Obligation	$16.9	$17.9	$17.9	$12.6	$15.7
Revenue Bonds	16.9	27.2	28.3	29.6	30.1
Total New Issues	33.8	45.1	46.2	42.2	45.8
(Refunding)	3.5	9.6	9.3	1.9	.2
Bonds Retired	12.1	15.7	16.1	17.5	18.0
Net Increase	24.7	29.4	29.8	24.4	27.8
Notes					
New Issues	21.9	21.3	21.6	20.9	20.2
Maturities	26.5	21.9	20.0	21.5	22.0
Net Increase	(-4.6)	(-.6)	.9	-.6	-1.8
Total Change in Municipal Debt	17.1	28.1	30.7	23.8	26.0

Sources: 1976-1979: Federal Reserve Board, Weekly Bond Buyer, and estimates of the Department of HUD.

1980: Department of HUD projections.

Table D-3
Corporate and Foreign Bonds
(dollars in billions)

	Calendar Years				
	Actual			Projected	
	1976	1977	1978	1979	1980
Gross Sales					
Publicly Offered	$26.5	$24.1	$19.8	$26.6	$35.7
Privately Placed	15.9	17.9	17.1	15.1	15.3
Total	42.4	42.0	36.9	41.7	51.0
Issues Sold by Industry Group					
Non-Financial	27.5	26.0	22.1	22.5	36.4
Fin. & Real Estate	9.5	10.6	9.6	13.6	9.4
Foreign	5.4	5.4	5.2	5.6	5.2
Adjustments & Maturities	10.2	9.5	9.3	10.5	10.9
Estimated Net Change	32.2	32.5	27.6	31.2	40.8

Sources: 1976-1979: Securities and Exchange Commission, Bureau of Economic Analysis, and Department of HUD estimates.

1980: Department of HUD projections.

Table D-4
Net Acquisitions of Long-Term Mortgage Loans on Residential Properties by Indentifiable Lender Groups
(dollars in billions)

	Calendar Years				
	Actual				Projected
1-4 Family Homes	1976	1977	1978	1979	1980
Savings & Loan Associations	$65.3	$86.5	$85.2	$76.1	$66.9
Mutual Savings Banks	8.1	11.4	12.0	10.8	9.3
Commercial Banks	20.6	32.1	37.0	35.5	30.7
Life Insurance Companies	.5	.6	1.6	3.1	3.0
Non-Insured Pension Funds	a/	.1	.4	.3	.1
State & Local Retirement Funds	.2	.4	.4	.5	.4
State & Local Credit Agencies	1.3	1.3	2.3	3.7	4.7
Mortgage Companies	.6	2.4	3.2	6.3	.2
Credit Unions	.7	.7	.7	.8	.4
Mortgage Investment Trusts	.1	.1	.1	a/	a/
Federal Credit Agencies	1.4	4.8	14.5	14.8	13.0
Federally Supported Mortgage Pools	15.8	22.1	21.8	28.3	37.5
Privately Insured Mortgage Pools	-	.2	1.1	2.6	4.1
Total	114.6	162.7	180.3	182.8	170.3
Multifamily Properties					
Savings & Loan Associations	$ 5.5	$ 6.9	$ 6.2	$ 4.8	$ 3.5
Mutual Savings Banks	1.6	1.8	1.7	1.0	.8
Commercial Banks	2.1	1.7	2.0	1.9	1.6
Life Insurance Companies	.8	1.0	1.9	1.7	1.6
Non-Insured Pension Funds	a/	.1	a/	.1	a/
State & Local Retirement Funds	.2	.2	.9	.8	.7
State & Local Credit Agencies	.9	1.2	.7	.7	.8
Mortgage Companies	a/	.6	.2	.6	(-.3)
Mortgage Investment Trusts	.2	.1	.1	a/	a/
Federal Credit Agencies	.6	1.1	.9	2.6	1.1
Federally Supported Mortgage Pools	.7	1.3	2.0	1.8	2.2
Total	12.6	16.1	16.5	16.0	12.0

a/ Less than $50 million.

Table D-5
Total Originations of Long-Term Mortgage Loans on Residential Properties by Identifiable Lender Groups
(dollars in billions)

	Calendar Years				
	Actual			Projected	
	1976	1977	1978	1979	1980
1-4 Family Homes					
Savings & Loan Associations	$61.9	$86.3	$90.0	$82.5	$75.5
Mutual Savings Banks	6.4	8.7	9.5	8.8	7.3
Commercial Banks	24.0	36.2	41.4	39.5	34.6
Life Insurance Companies	.4	.4	.8	1.8	1.8
Non-Insured Pension Funds	*	.1	.2	.2	.1
State & Local Retirement Funds	.1	.1	.1	.1	.1
State & Local Credit Agencies	1.0	.8	1.3	2.0	2.4
Mortgage Companies	15.7	25.7	34.4	44.4	44.7
Federal Credit Agencies	2.7	3.1	4.8	4.4	4.4
Credit Unions	.7	.7	.7	.7	.4
Mortgage Investment Trusts	.1	.1	.1	*	*
Total	113.0	162.2	183.3	184.3	171.3
Multifamily Properties					
Savings & Loan Associations	$ 5.1	$ 6.8	$ 6.2	$ 4.8	$ 3.6
Mutual Savings Banks	1.4	1.5	1.4	.9	.7
Commercial Banks	2.0	1.8	2.1	2.0	1.7
Life Insurance Companies	.8	1.0	1.8	1.7	1.6
Non-Insured Pension Funds	.1	.1	*	.1	*
State & Local Retirement Funds	.1	.2	.4	.5	.3
State & Local Credit Agencies	1.0	1.2	.9	.6	.7
Mortgage Investment Trusts	.2	.2	.2	.1	*
Mortgage Companies	.6	2.0	1.8	2.1	1.3
Federal Credit Agencies	1.1	1.0	1.7	2.7	1.6
Total	12.3	15.7	16.6	15.5	11.5

* Less than $50 milion.

Table D-6
Total Originations of 1-4 Family Long-Term Mortgage Loans by Identifiable Lender Groups
(dollars in billions)

	Calendar Years				
	Actual			Projected	
	1976	1977	1978	1979	1980
New 1-4 Family Homes					
Savings & Loan Associations	$17.7	$24.5	$27.7	$27.6	$25.0
Mutual Savings Banks	1.3	1.6	1.7	1.5	1.2
Commercial Banks	6.2	9.4	10.9	11.3	9.8
Life Insurance Companies	.1	.1	.2	.8	.6
Non-Insured Pension Funds	*	*	.2	.2	.1
State & Local Retirement Funds	*	*	*	*	*
State & Local Credit Agencies	.2	.1	.3	.1	.3
Mortgage Companies	5.0	8.7	14.0	15.9	15.7
Federal Credit Agencies	1.5	1.8	2.3	2.0	1.9
Credit Unions	.2	.2	.2	.3	.2
Mortgage Investment Trusts	.1	.1	*	*	*
Total a/	32.2	46.5	57.5	59.7	54.8
Previously Occupied 1-4 Family Homes					
Savings & Loan Associations	$44.2	$61.8	$62.2	$54.9	50.5
Mutual Savings Banks	5.2	7.0	7.8	7.3	6.1
Commercial Banks	17.8	26.8	30.5	28.2	24.8
Life Insurance Companies	.3	.3	.6	1.0	1.2
Non-Insured Pension Funds	*	*	*	0	*
State & Local Retirement Funds	.1	.1	.1	.1	*
State & Local Credit Agencies	.8	.8	1.0	1.8	2.1
Mortgage Companies	10.7	17.0	20.4	28.5	28.9
Federal Credit Agencies	1.2	1.3	2.5	2.3	2.5
Credit Unions	.5	.5	.5	.4	.2
Mortgage Investment Trusts	*	*	.1	*	*
Total a/	80.8	115.6	125.7	124.6	116.3

* Under $50,000

a/ Totals may not equal sum of parts to rounding.

Table D-7
Total Originations of Mortgage Loans on Multifamily Properties by Identifiable Lender Groups
(dollars in billions)

	Calendar Years				
	Actual			Projected	
	1976	1977	1978	1979	1980
New Multifamily Units					
Savings & Loan Associations	$1.2	$1.7	$1.9	$1.8	$1.6
Mutual Savings Banks	.4	.2	.3	.2	.2
Commercial Banks	.6	.4	.4	.8	.7
Life Insurance Companies	.4	.5	.9	.9	.8
Non-Insured Pension Funds	0	0	*	*	*
Mortgage Companies	.5	1.5	1.1	1.1	.5
State & Local Retirement Funds	*	*	0	.1	.1
State & Local Credit Agencies	.2	.3	.5	.5	.6
Federal Credit Agencies	1.0	.9	1.6	2.4	1.5
Mortgage Investment Trusts	.2	*	*	*	*
Total a/	4.5	5.5	6.7	7.8	6.0
Previously Occupied Multifamily Units					
Savings & Loan Associations	$3.9	$5.2	$4.3	$3.1	$2.0
Mutual Savings Banks	1.0	1.3	1.2	.7	.5
Commercial Banks	1.4	1.4	1.7	1.2	1.0
Life Insurance Companies	.3	.5	.9	.7	.8
Non-Insured Pension Funds	.1	*	*	*	*
Mortgage Companies	.1	.5	.8	1.0	.8
State & Local Retirement Funds	.1	.1	.4	.3	.2
State & Local Credit Agencies	.7	.9	.4	.1	.1
Federal Credit Agencies	.1	.1	.1	.2	.1
Mortgage Investment Trusts	.1	.1	.1	.1	*
Total a/	7.8	10.1	9.9	7.4	5.5

* Under $50,000.

a/ Totals may not equal sum of parts due to rounding.

Table D-8

Sources and Uses of Funds of Depository Institutions

(dollars in billions)

	Calendar Years			
	Actual			Projected
Savings and Loan Associations	1976	1977	1978	1979
Total Liabilities and Capital	$391.9	$459.2	$523.5	$579.1
Savings Capital	335.9	386.8	431.0	470.1
FHLB Advances	15.7	19.9	32.0	40.3
Other borrowed money	3.4	7.9	10.9	15.0
Loans in Process	6.8	9.9	10.7	9.5
Other Liabilities	8.1	9.5	9.9	11.6
Net Worth	22.0	25.2	29.1	32.5
Total Assets	391.9	459.2	523.5	579.1
Cash & Investment	35.7	39.2	44.9	46.5
Other Assets	33.2	38.9	45.9	57.0
Mortgages	323.0	381.2	432.8	475.7
Mutual Savings Banks				
Total Liabilities & Surplus	134.8	147.3	158.2	163.7
Deposits	123.7	134.0	142.7	145.0
Reserve Accounts and Other liabilities	11.1	13.3	15.5	18.7
Total Assets	134.8	147.3	158.2	163.7
U.S. Gov't & Federal Agency Securities	14.8	16.9	18.3	19.5
Municipal Securities	2.4	2.8	3.3	3.0
Corporate Stock	4.4	4.7	4.8	4.7
Corporate & Other Securities	20.4	21.6	21.6	20.6
Mortgage Loans	81.6	88.2	95.2	100.5
Cash & Other Assets	11.2	13.1	14.9	15.4
Credit Unions				
Total Assets	45.2	54.1	62.6	68.2
Loans Outstanding	34.4	42.1	51.8	59.6
Share Deposits	39.2	46.8	53.0	58.8

Sources: 1976-1979: Federal Home Loan Bank Board, National Association of Mutual Savings Banks, FDIC Call Reports, National Credit Union Administration, coupled with Department of HUD estimates for 1979.

Table D-9
Sources and Uses of Funds of Other Major Mortgage Investors

(dollars in billions)

	Calendar Years				
	Actual			Projected	
Commercial Banks	1975	1976	1977	1978	1979
Total Reserves	$961.1	$1040.0	$1176.6	$1268.6	$1356.4
Demand Deposits	325.5	338.7	384.9	399.2	376.0
Time Deposits	467.3	506.4	562.2	612.1	657.5
Capital Account & Borrowing	168.3	194.9	229.5	220.3	322.9
Total Loans & Investments	729.6	786.4	871.5	1030.4	1118.2
Treasury Securities	81.6	98.0	97.0	93.1	93.2
Federally supported market securities	33.8	34.9	36.1	45.0	33.7
Municipal securities	101.6	104.5	113.7	121.9	110.5
Real Estate Loans	136.5	151.2	179.0	210.5	247.5
Commercial & Industrial Loans	181.4	185.1	207.3	246.5	296.8
Loans to Individuals	107.3	119.3	141.5	164.9	186.9
Other Loans & Investment	87.4	93.5	96.9	148.5	149.6
Life Insurance Companies					
Total Assets	289.3	321.6	351.7	389.9	432.8
U.S. Gov't Securities	4.7	5.4	5.3	4.8	5.2
State & Local Securities	4.5	5.6	6.1	6.4	6.5
Foreign Securities	4.5	7.0	8.2	8.8	9.3
Corporate Bonds	107.3	123.0	141.9	162.6	182.4
Corporate Stocks	28.1	34.3	33.8	35.5	39.8
Mortgage Loans	89.2	91.6	96.8	106.2	117.4
Policy Loans	24.5	25.8	27.6	30.1	34.9
Cash and Other Assets	26.6	29.0	32.1	35.5	37.3

Sources: 1976-1979: FDIC Call Reports, Institute of Life Insurance, coupled with Department of HUD estimates for 1979.

Table D-10

Means of Financing for 1-4 Family Homes

(dollars in billions)

	Calendar Years				
	Actual			Projected	
New Homes	1976	1977	1978	1979	1980
Mortgage loans closed a/	$32.2	$46.5	$57.5	$59.7	$54.8
Average loan per dwelling b/ (in thousands)	$35.9	$40.5	$45.9	$53.3	$59.7
Number of homes financed c/ (thousands of units)	897	1148	1253	1120	918
Construction completions d/	1111	1353	1485	1424	1148
Number financed/completions	80.7%	84.8%	84.4%	78.7%	80.0%
Existing Homes					
Mortgage loans closed	$80.8	$115.6	$125.7	$124.6	$116.3
Average loan per dwelling (in thousands)	$29.1	$ 34.5	$ 37.4	$ 43.9	$ 48.3
Number of homes financed (thousands of units)	2777	3351	3361	2838	2408
Existing home sales (thousands of units)	3002	3572	3905	3742	3087
Proportion mortgage financed	92.5%	93 .8%	86.1%	75.8%	78.0%

Sources

a/ Table D-6

b/ Federal Home Loan Bank Board: average loan amounts for conventional loans

c/ mortgage loans closed divided by average loan amounts

d/ construction completions reported by Census Bureau, adjusted for condominium units built as multifamily projects and later financed as individual homes

e/ National Association of Realtors: existing single family home sales

Note: Q4, 1979 data estimated by HUD; 1980 figures projected by Department of HUD.

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Table D-11
Means of Financing for Multifamily Projects
(Dollars in billions)

	Calendar Years				
	Actual				Projected
	1976	1977	1978	1979	1980
New Apartment Units					
Mortgage Loans closed a/	$ 4.5	$ 5.5	$ 6.7	$ 7.8	$ 6.0
Average loan per unit (in thousands)	$27.0	$25.9	$28.1	$30.3	$32.7
Number of units financed (thousands of units)	167	212	238	257	183
Construction Completions d/ (thousands of units)	266	304	382	444	272
Number financed/completions	63%	70%	62%	58%	67%
Existing Apartment Units					
Mortgage loans closed a/	$ 7.8	$10.1	$ 9.9	$ 7.4	$ 5.5
Average loan per unit b/ (in thousands)	$33.3	$29.6	$32.6	$35.1	$37.8
Number of units financed c/	234	341	304	211	146

Sources:

a/ Table D-7.

b/ Department of HUD: average loan amounts for FHA-insured multifamily project loans, with some interpolations and adjustments.

c/ Mortgage loans closed divided by average loan amounts.

d/ Construction completions reported by Census Bureau, adjusted for condominium units built as multifamily units and later financed as individual homes.

Table D-12
Financing of Mobile Homes
(dollars in billions)

	Calendar Years				
	1976	1977	1978	1979	1980
Loan Requirements					
New Mobile Homes a/	$2.6	$3.1	$3.6	$3.8	$3.3
Used Mobile Homes b/	2.2	2.3	2.5	2.3	2.0
Total Requirements	4.8	5.4	6.1	6.1	5.3
Loans Extended					
Commercial Banks	3.1	3.5	3.7	3.6	3.4
Finance Companies	.7	.6	.9	.8	.7
Savings & Loan Associations	.9	1.1	1.2	1.5	1.1
Credit Unions	.2	.2	.2	.2	.1
	4.8	5.4	6.1	6.1	5.3

a) New Home shipments, adjusted for case sales, times average annual loan amounts.

b) Derived used home sales times average loan amounts.

Sources 1976-1979: National Conference of States on Building Codes and Standards (new home shipments); Veterans Administration and Federal Reserve Board (average loan amounts); Federal Reserve Board (loans extended by commercial banks and finance companies); and HUD estimates (based on data obtained from Federal Home Loan Bank Board, National Credit Union Administration and Veterans Administration).

1980: Department of HUD projections.

* Total many not equal sume of parts due to rounding.

TABLE D-13

Gross Flows of Mortgage Loans: Savings and Loan Associations
(Dollars in Billions)

	Calendar Years				
	Actual				Projected
	1976	1977	1978	1979	1980
Acquisitions of Construction Loans					
1-4 Family homes	$13.0	$18.2	$20.1	$18.5	$14.8
Multifamily properties	1.9	2.5	2.4	2.0	1.6
Non-residential properties	2.1	2.3	2.2	2.1	2.0
Construction Loans Outstanding	14.1	18.8	21.8	22.7	19.4
Long-Term Loans on 1-4 Family Homes					
Total Outstanding at year end	253.5	300.2	343.5	382.2	410.9
Net acquisitions during year	65.3	86.5	85.2	76.1	66.9
Gross acquisitions during year	73.0	99.5	100.2	94.0	85.9
Loan purchases	11.1	13.2	10.3	11.5	10.4
Loan originations, total	61.9	86.3	90.0	82.5	75.5
New properties	17.7	24.5	27.7	27.6	25.0
Existing properties	44.2	61.8	62.2	54.9	50.5
Loan sales	7.7	13.0	15.0	17.9	18.9
Long-Term Loans on Multifamily Properties					
Total outstanding at year end	26.6	29.9	32.7	34.0	34.5
Net acquisitions during year	5.5	6.9	6.2	4.8	3.5
Gross acquisitions during year	5.9	7.5	6.6	5.1	3.9
Loan purchases	.8	.7	.4	.3	.3
Loan originations, total	5.1	6.8	6.2	4.8	3.6
New properties	1.2	1.7	1.9	1.8	1.6
Existing properties	3.9	5.2	4.3	3.0	2.0
Loan sales	.4	.6	.4	.3	.4
Long-Term Loans on Non-residential and Farm Properties					
Total outstanding at year end	25.8	28.4	30.5	31.9	33.1
Net acquisitions during year	4.4	6.4	5.6	4.6	4.8
Gross acquisitions during year	6.7	6.9	6.0	4.8	5.1
Loan purchases	1.2	.9	.5	.3	.2
Loan originations	5.6	6.0	5.4	4.6	4.9
Loan sales	2.3	.5	.4	.3	.3

*Under $50,000.

Sources:

1976-1979: HUD New Releases and HUD Estimate 4th Quarter 1979.
1980: Department of Housing and Urban Development Projections.

TABLE D-14

Gross Flows of Mortgage Loans: Mutual Savings Banks
(Dollars in Billions)

	Calendar Years				
	Actual				Projected
	1976	1977	1978	1979	1980
Acquisitions of Construction Loans					
1-4 Family homes	$ .7	$ .9	$ 1.0	$ 1.1	$ .8
Multifamily properties	.2	.4	.6	.7	.4
Non-residential properties	.2	.4	.5	.5	.4
Construction Loans Outstanding	1.0	1.2	1.8	2.0	1.5
Long-Term Loans on 1-4 Family Homes					
Total Outstanding at year end	52.5	57.4	62.7	67.3	70.5
Net acquisitions during year	8.1	11.4	12.0	10.8	9.3
Gross acquisitions during year	8.6	11.6	12.3	11.4	9.5
Loan purchases	2.1	2.9	2.8	2.6	2.0
Loan originations, total	6.4	8.7	9.5	8.8	7.3
New properties	1.3	1.6	1.7	1.5	1.2
Existing properties	5.2	7.0	7.8	7.3	6.1
Loan sales	.5	.2	.3	.6	.4
Long-Term Loans on Multifamily Properties					
Total outstanding at year end	13.8	14.6	15.4	15.3	15.1
Net acquisitions during year	1.6	1.8	1.7	1.0	.8
Gross acquisitions during year	1.6	1.8	1.7	1.0	.8
Loan purchases	.3	.3	.3	.1	.2
Loan originations, total	1.4	1.5	1.4	.9	.7
New properties	.4	.2	.3	.2	.2
Existing properties	1.0	1.3	1.2	.7	.5
Loan sales	*	*	*	*	*
Long-Term Loans on Non-Residential and Farm Properties					
Total outstanding at year end	14.0	15.1	15.3	15.4	15.6
Net acquisitions during year	1.9	1.8	1.9	1.3	1.4
Gross acquisitions during year	1.9	1.8	2.0	1.3	1.4
Loan purchases	.2	.1	.2	.1	.1
Loan originations	1.7	1.7	1.8	1.2	1.3
Loan sales	*	*	*	*	*

*Under $50,000.

Sources:

1976-1979: HUD New Releases and HUD Estimate 4th Quarter 1979.
1980: Department of Housing and Urban Development Projections.

TABLE D-15

Gross Flows of Mortgage Loans: Commercial Banks
(Dollars in Billions)

	Calendar Years				
	Actual				Projected
	1976	1977	1978	1979	1980
Acquisitions of Construction Loans					
1-4 Family Homes	$ 6.4	$11.9	$13.9	$15.5	$14 0
Multifamily properties	2.5	3.4	5.4	6.1	4.4
Non-residential properties	7.8	8.8	15.5	20.1	19.1
Construction Loans Outstanding	16.8	20.9	26.6	34.4	34.5
Long-Term Loans on 1-4 Family Homes					
Total Outstanding at year end	77.8	93.9	113.7	132.7	147.0
Net acquisitions during year	20.6	32.1	37.0	35.5	30.7
Gross acquisitions during year	24.9	37.9	42.9	41.5	35.4
Loan purchases	.8	1.7	1.5	2.0	.8
Loan originations, total	24.0	36.2	41.4	39.5	34.6
New properties	6.2	9.4	10.9	11.3	9.8
Existing properties	17.8	26.8	30.5	28.2	24.8
Loan sales	4.3	5.8	5.8	6.0	4.7
Long-Term Loans on Multifamily Properties					
Total outstanding at year end	4.3	4.8	5.7	6.5	6.9
Net acquisitions during year	1.9	1.7	2.0	1.9	1.6
Gross acquisitions during year	2.0	1.8	2.2	2.0	1.7
Loan purchases	*	*	*	*	*
Loan originations, total	2.0	1.8	2.1	2.0	1.7
New properties	.6	.4	.4	.8	.7
Existing properties	1.4	1.4	1.7	1.2	1.0
Loan sales	.1	.1	.1	.1	.1
Long-Term Loans on Non-residential and Farm Properties					
Total oustanding at year end	46.2	54.1	62.6	68.2	75.5
Net acquisitions during year	12.8	19.3	21.3	17.7	20.6
Gross acquisitions during year	13.3	20.2	22.1	18.8	21.5
Loan purchases	.1	.4	.4	.2	.3
Loan originations	13.2	19.8	21.7	18.6	21.2
Loan sales	.6	.9	.8	1.1	.9

*Under $50,000.

Sources:
1976-1979: HUD News Releases and HUD Estimate 4th Quarter 1979.
1980: Department of Housing and Urban Development Projections.

TABLE D-16

Gross Flows of Mortgage Loans: Life Insurance Companies
(Dollars in Billions)

	Calendar Years				
	Actual				Projected
	1976	1977	1978	1979	1980
Acquisitions of Construction Loans					
1-4 Family homes	$ *	$ *	$ *	$ *	$ *
Multifamily properties	*	*	*	*	*
Non-residential properties	.3	.4	.3	.5	.5
Construction Loans Outstanding	.4	.4	.4	.5	.6
Long-Term Loans on 1-4 Family Homes					
Total Outstanding at year end	15.5	14.0	13.9	15.3	16.5
Net acquisitions during year	.5	.6	1.6	3.1	3.0
Gross acquisitions during year	.5	.6	1.7	3.3	3.1
Loan purchases	.1	.2	.8	1.5	1.3
Loan originations, total	.4	.4	.8	1.8	1.8
New properties	.1	.1	.2	.8	.6
Existing properties	.3	.3	.6	1.0	1.2
Loan sales	*	*	*	.2	.1
Long-Term Loans on Multifamily Properties					
Total outstanding at year end	18.4	17.9	18.2	18.4	18.5
Net acquisitions during year	.8	1.0	1.9	1.7	1.6
Gross acquisitions during year	.8	1.0	1.9	1.7	1.6
Loan purchases	*	*	*	.1	*
Loan originations, total	.8	1.0	1.8	1.6	1.6
New properties	.4	.5	.9	.9	.8
Existing properties	.3	.5	.9	.7	.8
Loan Sales	0	*	*	0	0
Long-Term Loans on Non-residential and Farm Properties					
Total Outstanding at year end	54.1	61.0	69.8	80.5	90.6
Net acquisitions during year	6.2	11.5	13.3	14.7	15.8
Gross acquisitions during year	6.2	11.6	13.3	14.7	15.8
Loan purchases	.3	.6	.6	.7	.7
Loan originations	6.0	11.0	12.7	14.1	15.1
Loan sales	*	.1	*	*	*

*Under $50,000.

Sources:

1976-1979: HUD News Releases and HUD Estimate 4th Quarter 1979.
1980: Department of Housing and Urban Development Projections.

TABLE D-17

Gross Flows of Mortgage Loans: Mortgage Companies
(Dollars in Billions)

	Calendar Years				
	Actual				Projected
	1976	1977	1978	1979	1980
Acquisitions of Construction Loans					
1-4 Family homes	$ 1.4	$ 1.8	$ 3.4	$ 3.5	$ 2.8
Multifamily properties	.5	.7	1.2	1.3	.9
Non-residential properties	.8	1.0	1.6	2.4	2.2
Construction Loans Outstanding	2.7	2.9	3.5	4.0	3.4
Long-Term Loans on 1-4 Family Homes					
Total Outstanding at year end	4.2	5.0	7.3	10.7	8.6
Net acquisitions during year	.5	2.4	3.2	6.3	.2
Gross acquisitions during year	17.6	29.8	38.3	50.3	47.5
Loan purchases	2.2	4.1	3.8	5.9	2.8
Loan originations, total	15.4	25.7	34.4	44.4	44.7
New properties	4.9	8.7	14.0	15.9	15.7
Existing properties	10.5	17.0	20.4	28.5	28.9
Loan sales	17.1	27.3	35.0	44.0	47.3
Long-Term Loans on Multifamily Properties					
Total outstanding at year end	1.2	1.4	1.4	1.7	1.2
Net acquisitions during year	*	.6	.2	.6	(-.3)
Gross acquisitions during year	.6	2.0	2.0	2.1	1.3
Loan purchases	*	.1	.2	*	.1
Loan originations, total	.6	2.0	1.8	2.1	1.3
New properties	.5	1.5	1.1	1.1	.5
Existing properties	.1	.5	.8	1.0	.8
Loan sales	.6	1.5	1.8	1.6	1.6
Long-Term Loans on Non-residential and Farm Properties					
Total outstanding at year end	.7	1.1	1.1	1.0	1.0
Net acquisitions during year	.1	.5	.8	.9	.4
Gross acquisitions during year	1.3	5.2	6.5	6.0	5.0
Loan purchases	*	.1	*	.1	.1
Loan originations	1.3	5.1	6.5	5.9	4.9
Loan sales	1.2	4.7	5.8	5.2	4.7

*Under $50,000.

Sources:

1976-1979: HUD News Releases and HUD Estimate 4th Quarter 1979.
1980: Department of Housing and Urban Development Projections.

TABLE D-18

Gross Flows of Mortgage Loans: Federal Credit Agencies
(Dollars in Billions)

	Calendar Years				
	Actual				Projected
	1976	1977	1978	1979	1980
Acquisitions of Construction Loans					
1-4 Family homes	$ 0	$ 0	$ 0	$ 0	$ 0
Multifamily properties	*	*	.3	.5	.5
Non-residential properties	0	0	0	0	0
Construction Loans Outstanding	*	*	.3	.8	1.2
Long-Term Loans on 1-4 Family Homes					
Total Outstanding at year end	36.6	36.7	46.1	56.3	63.3
Net acquisitions during year	1.4	4.8	14.5	14.8	33.1
Gross acquisitions during year	12.2	12.4	23.6	20.7	17.4
Loan purchases	9.6	9.3	18.8	16.3	13.5
Loan originations, total	2.7	3.1	4.8	4.4	4.4
New properties	1.5	1.8	2.3	2.0	1.9
Existing properties	1.2	1.3	2.5	2.3	2.5
Loan sales	10.8	7.6	9.1	5.9	4.9
Long-Term Loans on Multifamily Properties					
Total outstanding at year end	12.6	13.0	13.5	13.6	14.0
Net acquisitions during year	.6	1.0	.9	1.0	1.1
Gross acquisitions during year	1.8	2.4	3.6	4.2	3.0
Loan purchases	.7	1.4	1.9	1.5	1.4
Loan originations, total	1.1	1.0	1.7	2.7	1.6
New properties	1.0	.9	1.6	2.4	1.5
Existing properties	.1	.1	.1	.2	.1
Loan sales	1.2	1.4	2.7	3.2	2.0
Long-Term Loans on Non-residential and Farm Properties					
Total outstanding at year end	22.7	25.5	29.7	35.5	39.5
Net acquisitions during year	5.1	6.1	7.6	9.4	8.5
Gross acquisitions during year	5.9	7.3	9.1	10.6	9.6
Loan purchases	.4	.7	1.2	.6	.7
Loan originations	5.5	6.6	7.9	10.0	8.9
Loan sales	.8	1.2	1.5	1.2	1.2

*Under $50,000.

Sources:

1976-1979: HUD News Releases and HUD Estimate 4th Quarter 1979.
1980: Department of Housing and Urban Development Projections.

TABLE D-19

Gross Flows of Mortgage Loans: Mortgage Pools[a]
(Dollars in Billions)

	Calendar Years				
	Actual				Project
A. Federally Supported Mortgage Pools[a]	1976	1977	1978	1979	1980
Long-Term Loans on 1-4 Family Homes					
Total Outstanding at year end	$41.5	$60.0	$75.5	$98.3	$129.2
Net acquisitions during year	15.8	22.1	21.8	28.3	37.4
Loan purchases	16.4	23.4	23.2	29.1	38.1
Loan sales	.5	1.3	1.4	.6	.7
Long-Term Loans on Multifamily Properties					
Total Outstanding at year end	1.9	3.1	4.6	7.0	8.4
Net acquisitions during year	.7	1.3	2.0	2.6	2.2
Loan purchases	.7	1.4	2.0	2.6	2.2
Loan sales	*	.1	.1	0	0
Long-Term Loans on Non-residential and Farm Properties					
Total outstanding at year end	3.9	4.4	4.8	5.4	6.3
Net acquisitions during year	.5	.6	.5	.7	1.0
Loan purchases	.8	1.2	1.5	1.2	1.7
Loan sales	.3	.5	1.0	.5	.7
B. Privately Insured Mortgage Pools[b]					
Long-Term Loans on 1-4 Family Homes					
Total Outstanding at year end	-	.2	1.3	3.6	7.4
Net acquisitions during year	-	.2	1.1	2.6	4.1
Loan purchases	-	.2	1.1	2.6	4.1
Loan sales	-	0	0	0	0

[a] Financed by securities guaranteed by Government National Mortgage Association, Federal Home Loan Mortgage Corporation, Farmers Home Administration.

[b] Conventional mortgage pass-through certificates insured by Mortgage Guaranty Insurance Corp., TICOR Mortgage Insurance, VEREX Mortgage Insurance, PMI Mortgage Insurance, Investors Mortgage Insurance, and United Guaranty Corp. The first such pool insured was in September, 1977.

* Less than $50 million

TABLE D-20

Gross Flows of Mortgage Loans: Pension Funds
(Dollars in Billions)

	Calendar Years				
	Actual				Projected
	1976	1977	1978	1979	1980
Long-Term Loans on 1-4 Family Homes					
Total Outstanding at year end	$ .6	$ .6	$ .9	$1.1	$ 1.0
Net acquisitions during year	*	.1	.4	.3	.1
Gross acquisitions during year	*	.1	.4	.4	.2
Loan purchases	*	.1	.2	.2	.1
Loan originations, total	*	.1	.2	.2	.1
New properties	*	*	.2	.2	.1
Existing properties	*	*	*	*	*
Loan sales	*	*	*	.1	*
Long-Term Loans on Multifamily Properties					
Total outstanding at year end	.5	.5	.5	.5	.5
Net acquisitions during year	*	.1	*	.1	*
Gross acquisitions during year	.1	.2	.1	.1	*
Loan purchases	0	.1	0	*	0
Loan originations, total	.1	.1	*	.1	*
New properties	.1	0	*	*	*
Existing properties	*	.1	*	*	*
Loan sales	*	.1	.1	*	*
Long-Term Loans on Non-residential and Farm Properties					
Total outstanding at year end	1.2	1.3	1.4	1.3	1.2
Net acquisitions during year	.2	.1	.1	.1	.1
Gross acquisitions during year	.2	.2	.2	.2	.2
Loan purchases	*	*	*	*	*
Loan originations	.2	.2	.1	.2	.1
Loan sales	*	*	*	.1	*

*Under $50,000.

Sources:
1976-1979: HUD News Releases and HUD Estimate 4th Quarter 1979.
1980: Department of Housing and Urban Development Projections.

TABLE D-21

Gross Flows of Mortgage Loans: State & Local Credit Agencies
(Dollars in Billions)

	Calendar Years				
	Actual				Projected
	1976	1977	1978	1979	1980
Acquisition of Construction Loans					
1-4 Family homes	$ *	$ *	$ *	$ *	$ *
Multifamily properties	.3	.3	.3	.6	.9
Non-residential properties	*	0	0	0	0
Construction Loans Outstanding	1.7	1.2	1.2	1.5	2.2
Long-Term Loans on 1-4 Family Homes					
Total Outstanding at year end	4.9	5.2	7.1	10.7	13.6
Net acquisitions during year	1.3	1.3	2.3	3.7	4.7
Gross acquisitions during year	1.3	1.3	2.3	3.7	4.7
Loan purchases	.3	.4	.9	1.7	2.3
Loan originations, total	1.0	.8	1.3	2.0	2.4
New properties	.2	.1	.3	.1	.1
Existing properties	.8	.7	1.0	1.8	2.3
Loan sales	0	0	*	0	0
Long-Term Loans on Multifamily Properties					
Total outstanding at year end	5.6	6.3	6.5	7.2	7.8
Net acquisitions during year	.9	1.2	.7	.7	.8
Gross acquisitions during year	1.0	1.2	.9	.8	.9
Loan purchases	*	*	.1	.1	.2
Loan originations, total	1.0	1.2	.9	.6	.7
New properties	.2	.3	.5	.5	.6
Existing properties	.7	.9	.4	.1	.1
Loan sales	.1	*	.3	.1	.1
Long-Term Loan on Non-residential and Farm Properties					
Total outstanding at year end	1.9	2.0	2.1	2.3	2.6
Net acquisitions during year	.2	.2	.2	.4	.4
Gross acquisitions during year	.2	.2	.2	.4	.4
Loan purchases	0	0	*	*	*
Loan originations	.2	.2	.2	.4	.4
Loan sales	0	0	0	0	0

*Under $50,000.

Sources:

1976-1979: HUD News Releases and HUD Estimated 4th Quarter 1979.
1980: Department of Housing and Urban Development Projections.

TABLE D-22

Gross Flows of Mortgage Loans: State & Local Retirement Funds
(Dollars in Billions)

	Calendar Years				
	Actual				Projected
	1976	1977	1978	1979	1980
Acquisitions of Construction Loans					
1-4 Family homes	$ *	$ *	$ 0	$ *	$ 0
Multifamily properties	*	*	*	.1	*
Non-residential properties	.1	.1	*	*	*
Construction Loans Outstanding	.2	.2	.2	.2	.2
Long-Term Loans on 1-4 Family Homes					
Total Outstanding at year end	2.8	2.9	2.8	3.0	3.1
Net acquisitions during year	.2	.4	.4	.5	.4
Gross acquisitions during year	.3	.5	.5	.5	.5
Loan purchases	.2	.3	.4	.4	.4
Loan originations, total	.1	.1	.1	.1	*
New properties	*	*	*	*	*
Existing properties	.1	.1	*	*	*
Loan sales	*	*	*	*	*
Long-Term Loans on Multifamily Properties					
Total outstanding at year end	2.3	2.2	2.7	3.2	3.4
Net acquisitions during year	.2	.2	.9	.8	.7
Gross acquisitions during year	.2	.3	.9	.9	.7
Loan purcahses	.1	.1	.5	.4	.3
Loan originations, total	.1	.2	.4	.5	.3
New properties	*	*	0	.1	*
Existing properties	.1	.1	.4	.3	.3
Loan sales	*	*	*	*	*
Long-Term Loans on Non-residential and Farm Properties					
Total outstanding at year end	2.4	2.8	2.9	2.9	3.2
Net acquisitions during year	.3	.5	.3	.2	.5
Gross acquisitions during year	.3	.5	.3	.2	.5
Loan purcahses	.1	.1	.1	.1	.1
Loan originations	.2	.4	.2	.1	.4
Loan sales	*	0	*	0	0

*Under $50,000.

Sources:

1976-1979: HUD New Releases and HUD Estimate 4th Quarter 1979.
1980: Department of Housing and Urban Development Projections.

TABLE D-23

Gross Flows of Mortgage Loans: Real Estate Investment Trusts
(Dollars in Billions)

	Calendar Years				
	Actual				Projected
	1976	1977	1978	1979	1980
Acquisition of Construction Loans					
1-4 Family homes	$ .4	$ .4	$ .4	$ .3	$ .1
Multifamily properties	.4	.2	.4	.3	.2
Non-residential properties	.5	.5	.8	.6	.4
Construction Loans Outstanding	3.5	2.4	2.1	1.3	.8
Long-Term Loans on 1-4 Family Homes					
Total Outstanding at year end	.2	.2	.2	.2	.2
Net acquisitions during year	.1	.1	.1	*	*
Gross acquisitions during year	.1	.1	.1	*	*
Loan purchases	*	*	*	*	0
Loan orignations, total	.1	.1	.1	*	*
New properties	.1	.1	*	*	*
Existing proeprties	*	*	*	*	*
Loan sales	*	*	*	*	0
Long-Term Loans on Multifamily Properties					
Total outstanding at year end	1.0	.9	.8	.7	.6
Net acquisitions during year	.2	.1	.1	*	*
Gross acquisitions during year	.2	.2	.2	.1	*
Loan purchases	*	*	*	*	0
Loan originations, total	.2	.2	.2	.1	*
New properties	.2	*	*	*	0
Existing properties	*	.1	.1	.1	*
Loan sales	*	*	*	*	*
Long-Term Loans on Non-residential and Farm Properties					
Total outstanding at year end	2.6	2.0	1.9	1.8	1.6
Net acquisitions during year	.2	(-.1)	.2	.1	.1
Gross acquisitions during year	.3	.3	.2	.1	.1
Loan purchases	*	*	*	*	*
Loan originations	.3	.2	.2	.1	.1
Loan sales	.1	.3	*	*	*

*Under $50,000.

Sources:

1976-1979: HUD News Releases and HUD Estimated 4th Quarter 1979.
1980: Department of Housing and Urban Development Projections.

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